

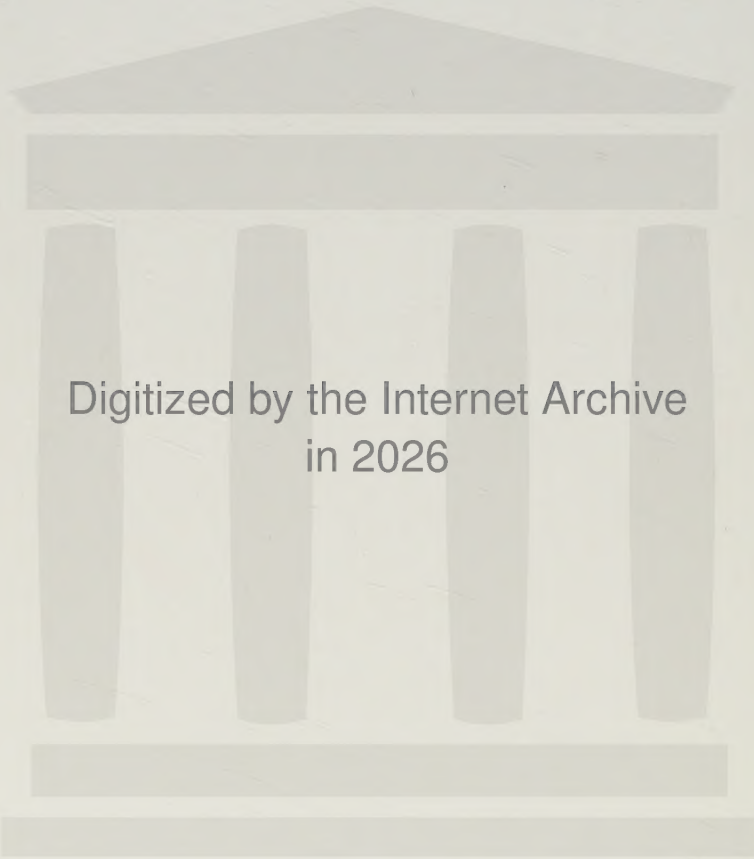
Henry N Geraedts

**The People's Republic of China:
Foreign Economic Relations and
Technology Acquisition 1972-1981**



Research Policy Institute
University of Lund, Sweden

1983



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Henry N Geraedts

"Parturiunt montes; nascetur ridiculus mus"
(Horatius)

Lund Political Studies no 40

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To Birgitta and Eleonore,
for putting up with it all.

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Henry N. Geraedts

CHAPTER I: INTRODUCTION

I.1 Background

The end of the "militant" phase of the "Great Proletarian Cultural Revolution" and the first attempts to reorganize the Chinese Communist Party (CCP) and restore its authority occurred in 1969. In a sense, the convening of the Ninth Party Congress during the spring of that year represents a "marker" of those developments. Although it became clear fairly rapidly that the party was to play a substantially more important role in the coming years, the exact nature of its future role and position were not specified in any detail at the time.

Along with these attempts to re-establish the CCP's authority and organizational framework, a new attempt was made to draw up a set of guidelines for economic policy.¹ By 1970-1971 information in the field of economic policy was characterized by the emergence of what was essentially a mix of approaches rooted in the mid-1950's or the first half of the 1960's, together with a number of new elements which were the result of the "Cultural Revolution". While during the 1966-1969 period policy statements as well as implemented policy bore the signs of following chiefly ideological considerations to a large extent, statements and behavior during the opening years of the 1970's indicated that objectives such as controlled development and an increased level of economic efficiency were higher up on the list of priorities. By no means replacing or eliminating essentially ideologically inspired rhetoric, many statements in 1971 and 1972 nevertheless included the argument that a rapid and coordinated development could only be achieved by means of a comprehensive controlled strategy and increased central control. Following policies of the mid-1950's, those responsible for economic policy pushed the parallel development of small, primarily labor-intensive factories and large-scale, capital-intensive plants. This approach, however, rapidly showed a tendency to favor the latter category. While it was acknowledged that small-scale factories possessed a number of advantages such as requiring less capital and a lower level of training of the personnel, it was evidently assumed that large-scale, more or less integrated, production complexes would produce necessary goods in a more efficient manner. In that sense, the policy directives which subsequently ordered the consolidation and restoration of existing enterprises while at the same time concentrating on new large-scale facilities, were consistent with the intended emphasis on efficiency and accelerated growth.

The proposed approaches at the domestic level with regard to industrial and general economic development relate to the attitude of the People's Republic of China (PRC) in foreign policy matters in a number of ways. First, it should be borne in mind that substantial changes had occurred in the international system during the preceding years when the PRC had virtually isolated itself.² It can be argued that once the PRC leadership became aware of them, these changes had the dual effect of forcing the country to alter its behavior with respect to the international environment, and of making it possible and politically acceptable for the country to re-establish contacts with potentially interesting foreign actors. In other words, recognizing that the attitude of isolation which had dominated the PRC's stance during the preceding years was no longer a viable proposition and was in fact endangering the country's security position, the leadership initiated a cautious turn outward.³ The resulting effort to restore a network of foreign relations focused both on Third World countries and on a majority of the industrialized nations. It also included the novel drive for "détente" with the United States. The PRC's turn outward also enabled it to boost its interaction with actors in the international economic system and the establishment of contacts with a growing and diversified number of countries and organizations. Among the effects which could be expected as a result of the increased interaction with the international economic system, were the access the PRC would obtain to the markets as well as to the technological capabilities of its counterparts. Third, it became evident at that time that the emphasis placed by the leadership on the country's ability to expand and modernize its economy was interrelated with its position in the international system in terms of security. The ability to operate on the basis of economic independence was directly related to the pursuit of political and military security. Finally, while a degree of consensus appears to have existed with respect to the acceptance of that relationship, the pursuit of economic independence and the related issue of whether to rely on domestic resources or on the acquisition of foreign capabilities did become a bone of contention in a number of ways. Settling that dispute, as we shall see, demanded roughly half a decade, and highlighted a number of aspects of policy formation in domestic policies as well as in the relationship between domestic and foreign policy.

I.2 Objectives

The aims of the present study are limited and have been kept fairly simple. At the center of the study lies an overview of the evolution of the PRC's foreign economic relations and its behavior with respect to the acquisition of foreign technology during the 1972-1981 period. In connection with some of the observations contained in this overview, a presentation will be given of three sets of factors which may be considered to have an explanatory value. It will be maintained that the changes which occurred after 1978-1979, cannot be explained by one single set of variables, but should be explained by a combination of factors. Two of these sets of factors can be termed "technical" and relate to financial/economic matters and technological matters respectively, and the third relates to a number of aspects of the political system and its workings. Finally, on the basis of the information provided by the empirical material and the analysis, a number of conclusions will be presented.

It should be noted that the study is essentially descriptive; that the analysis is confined to the "macro" treatment of a number of explanatory factors, leaving the "micro" analysis to those well-versed for example in the intricacies of PRC applied economics; that the study deals essentially with implemented policy; i.e., the results, and not the implementation process as such.

This study is an inquiry into the nature and extent of the changes that occurred in the PRC's foreign economic relations and technology acquisition policy, based on questions regarding a discrepancy between declared and implemented policy, and possible explanations for the significant changes after December 1978. Can the discrepancy be accounted for, and were the changes the result of specific decisions regarding the policy, or were they related to the struggle for successional power and its outcome?

I.3 Framework for analysis

I.3.1 Delimitations and relations to previous research

In this section, a brief outline will be given of some of the motives which underly the choice of the 1972-1981 period and the PRC's foreign economic relations and approach to the acquisition of foreign technology.

Any study or discussion of what is referred to as a country's foreign policy touches upon the well-established dispersity of views regarding the subject; i.e., what foreign policy is exactly and which method is best suited for its analysis. Although the scope of definitions is wide and the disagreements cover a variety of details, some consensus does exist and can be exemplified by the following definitions of the phenomenon: "the actions of a state toward the external environment and the conditions, usually domestic, under which these actions are formulated";⁴ "internal influences on external behavior";⁵ "foreign policy refers to the formulation, implementation and evaluation of external choices within one country";⁶ "a form of action which involves: (1) selection of objectives, (2) mobilization of the means for achieving those objectives, and (3) implementation, or the actual expenditure of efforts and resources in pursuit of the selected objectives".⁷ Since these definitions all refer to the general characteristics or relationships involved, they do not touch upon the existence or importance of specific sub-elements. These definitions can thus be viewed as representative of the traditional tendency to equate foreign policy with issues related to national security. Although economic elements may not have been entirely overlooked, they appear to occupy a position of secondary importance to security defined in diplomatic or military terms.⁸

For a number of reasons, this position of secondary importance occupied by the trade and economic aspects of foreign policy is hardly justified. One of the main reasons for the lack of justification of this perception is that the bonds which keep together the international system have been affected by tendencies towards interdependence. The effects of this tendency are felt to an increasing extent in a growing number of areas: "the traditional agenda of international affairs - the balance among major powers, the security of nations - no longer defines our perils and our possibilities. (.....) The world has become interdependent in economics, in communications, in human aspirations."⁹ The view of our era as one in which the territorial state is being eclipsed by non-territorial actors such as multinational corporations, international organizations, etc., is espoused by a growing number of analysts.¹⁰ However, while there exist undeniable indications that such developments are taking place, it should be borne in mind that in a substantial number of cases the state, in practice, remains the principal actor. Thus the statement that: "the state is about through as an economic unit", may be pressing the point too far.¹¹

A further consideration should be kept in mind in this context. A state's material and other economic resources as well as its ability to make use of them, have important consequences for its overall economic structure and performance. Also, the nature and extent of these resources and the capabilities they help to generate, can be expected to have substantial ramifications in terms of the range of opportunities and constraints they represent to those in charge of formulating policy; for example, a state's dependence on imports vital to the satisfactory performance of its economy, or in an extreme case vital to its survival, may have the effect of rendering mandatory decisions which under other circumstances would have lacked importance. Thus, the successful management of a state's economic performance, both domestically and with respect to relations with other actors which may have bearing on that performance, can be expected to have effects on its position in a dual manner: the adequate and satisfactory management of those relations may affect the state directly through the domestic effects of the performance of the economy and indirectly through the importance of the economy's performance for the state's position with regard to the international system. Poor performance of the economy could have profound effects on the state's military capabilities thus affecting its national security position.¹²

In spite of these linkages, foreign economic policy (the formulation of policy as well as the conduct of relations) appears to have been perceived chiefly as the result of routine behavior or of more or less traditional ties. It would be difficult to maintain that the perception of a state altering its behavior in this regard on the grounds of altered assessments concerning the objectives or results of its policy, is the dominating one. However, it must be viewed as axiomatic that the conduct of any given state's foreign relations, including economic relations, does not take place in a vacuum. The conduct of these relations, on the contrary, must be seen as part of that state's total scope of activities, thus reflecting a number of the criteria, concerns, attitudes, etc., which influence its behavior, both in domestic and external contexts.

From the general to the more specific, it should be noted that where the PRC is concerned, compared to the volume of studies dealing with domestic topics, political or other, the field of foreign policy is small. In addition, one is left with the impression that in the latter area the subject has mainly been treated in the "traditional" sense of the term resulting in studies of the PRC's global posture or its foreign policy stance at different points in time as well

as in analyses of relevant domestic determinants of its foreign policy. A number of the studies do deal with the PRC's behavior in specific foreign policy areas or situations.

Briefly, examples of the latter type of study, with particular reference to external economic relations, are Usack and Batsavage's study of the development of the PRC's international trade, Tansky's review of the PRC's policy of foreign aid,¹³ Fogarty's study of the PRC's economic relations with the Third World, Kim's study of Sino-Japanese commercial relations, Clarke and Avery's overview of Sino-American commercial relations,¹⁴ to name only a few.¹⁵ Where the PRC's foreign policy in the "traditional" sense of the term is concerned, there are studies by Camilleri, Gelber, Chen and Copper,¹⁶ as well as work by Fingar, Robinson, Whiting, Dernberger, Tretiak and Harding,¹⁷ on domestic political determinants of foreign policy. In the field of non-political determinants of foreign policy, there are, among others, the studies of Groen and Kilpatrick as well as Surls on the role of agricultural factors,¹⁸ by Lardy, Dernberger, Eckstein, Hishida, Shikamura and Maruyama on economic factors,¹⁹ by Sigurdson, Baark, Volti and Suttmeier on factors related to technology and Science and Technology or Research and Development policy²⁰ and among others by Baum and Pye on some of the aspects of the role of cultural factors which directly or indirectly influence the shaping of policy.²¹

The above-mentioned studies concerning aspects of the PRC's trade relations notwithstanding, the country's foreign economic relations, as a subject, appear to have suffered from a relative lack of attention.²² While the PRC has never been, and still is not, a leading trading nation in quantitative terms (in spite of its considerable size and its low GNP, the PRC's foreign trade turnover has not exceeded approximately 5-6% of its GNP) this lack of interest seems unjustified. Whenever necessary, foreign trade and other economic relations have constituted important policy instruments which have been used in the pursuit of both economic and other, more general, political objectives. The conduct of foreign economic relations being a state monopoly within the framework of a command economy, it has provided the PRC with the means, not only of compensating the shortcomings of its domestic production system (the purchase of, at times, significant volumes of grain from the West since the early 1960s being but one example) but has also played a significant role in the country's attempts to develop and transform itself into a modern economic and military power. Since a sizable number of the ingredients necessary for

the successful implementation of the intended development strategy were scarce or not available in the country, the conduct of foreign economic relations enabled the PRC to acquire what it lacked abroad. In this manner, the PRC has, since its foundation in 1949, always maintained relations of trade with foreign partners, be they from the Communist bloc or from the OECD group, based not only on economic considerations but on ideological "guidelines" as well.

Finally, an initial overview of the chronology of events related to the PRC's behavior between 1972-1981 suggested that there existed a discrepancy between what was being stated, either rhetorically or officially, and what was actually being done. The plausible reasons for this state of events being many, it seemed of interest to attempt to establish what could be considered the chief determinants of both the behavior and the observed discrepancy. This, in turn, suggested that an examination should include both "technical" factors such as financial and economic determinants, and technology and S&T policy related elements, as well as a discussion of the possible effects of the political system in that regard. The "mix" is justified when one keeps in mind that, while studies such as the ones mentioned above by Hishida, Maruyama, Heyman and Simon²³ are very instructive and treat their respective subjects in depth, they are what has been termed "technical" studies. In this type of study, there is a tendency to view the policy or other issues under scrutiny, predominantly in terms of "problem-solving" activities, in the process reducing the subject to a "technicality". Such a reduction of a policy measure to the level of its technical aspects, characteristically pays scant attention to the effects of the political system and its workings. The political structure appears to be taken as given; this leads to insufficient attention being paid to the way the "rules of the game" inherent in the system affect such matters as policy-making, the nature of the relationship between policy statements and the policy itself, the influence of the system on the implementation process, etc.

I.3.2 Terminology and Concepts

A number of the terms and concepts used in this study warrant explanation. Since the study is principally concerned with the evolution of the PRC's policy of foreign economic relations and its behavior with regard to the acquisition of foreign technology, a review of the terms "policy", "foreign economic relations" and "technology" appears appropriate.

Policy. The term foreign policy will in the present context be used as signifying: "the actions of a state towards the external environment and the conditions, usually domestic, under which these actions are formulated."²⁴ Where the term policy is concerned, Grumm suggests that it be conceived of as a "general pattern of decisions and actions by governmental authorities that are tied together by a common and general goal to which all of the actions are directed".²⁵ With reference to this broad definition, the term will be used as connoting: (a) a goal or objective to be achieved, (b) a statement or series of statements about the intended course of action or plans to achieve the goals, and (c) the actual actions or behavior of the authorities invoked by the policy statements.²⁶ Since one of the points of departure of this study is the relationship between actual behavior and policy statements, the following distinctions should be made between the following two elements: considerations bearing on policy-making, and "levels" of policy-making. Even in the presence of external elements and their direct or indirect influence on policy-making, the integrated and introvert nature of the PRC political system suggests that special attention be paid to domestic factors. Reference will therefore be made to the following considerations bearing on, or criteria involved in, policy-making. These can be classified as follows: (a) economic ideology (e.g. market economy or command economy), (b) economic factors (e.g. predominance of either economic or trade related factors), (c) "national-goal" interests (e.g. security/military factors), and (d) the position and strength of the various domestic actors involved in or related to the policy-making process.²⁷ Thus, a discussion of the formulation of policies as well as their implementation should be based on criteria relating to ideological factors, "technical"-goal oriented factors, "national"-goal oriented factors and domestic power politics.

Fingar has suggested that the policy-making process in the PRC takes place at three levels, giving rise to three types of policy-making. These have been described as follows:

- 1) The first type (or highest level) is that of formal or intended policy. Such policies refer to those measures that have been adopted in accordance with specified rules and procedures. They are often, but not always, promulgated as explicit and authoritative directives that explain official policy and the reasons behind its adoption.
- 2) The second type might be called "rhetorical policy". Rhetorical policies exist in all polities, but they are particularly important and troublesome in

the case of China. Basically, they consist of the exaggerated and distorted interpretations presented by both supporters and opponents of official policies. Supporters and beneficiaries exaggerate the advantages and successes of particular policies; opponents resort to hyperbole and outright falsifications to discredit measures they hope to change.

3) Actual or implemented policies may resemble either of the first two types, but they may also differ from both. While there is likely to be just one official policy at any particular time, the distortions introduced at the level of rhetorical policy frequently lead to considerable variation at the level of actual policy.²⁸

Foreign economic relations. In this study the term foreign economic relations will signify the broadest possible scope of external economic relations a given state may entertain with other actors in the international economic system. Foreign or external economic relations thus stretch beyond the limits of the traditional conduct of foreign trade, as the latter basically confines itself to the selling and acquiring of a varying volume and spectrum of goods. While it is true that a number of financial arrangements may be utilized in the conduct of foreign trade relations, this term nevertheless falls short of covering the remaining activities included in the process of external economic interaction. The term "foreign or external economic relations" will be used here to mean the entire scope of all overt or covert economic interactions between actors at all levels within a given state, on the one hand, and actors at all levels within the international economic system, on the other. The term "actors at all levels" can in turn be interpreted as follows: within a given state, actors ranging from the highest governmental organizations to the level of the individual enterprise; and in the international economic system, actors ranging from the international organization, and the national organization to the individual enterprise. The international economic system is therefore composed of all possible actors engaging in economic interaction. Evidently, it is possible for a given state to interact with the international economic system in a large number of ways. It can abstain entirely from having any interaction with the system as a whole; i.e. a situation of isolation; it can engage in limited interaction with only certain actors in the system or make use only of certain of the forms of interaction available within the framework of activities of the system; or involve itself entirely in interaction with a majority of the actors in the process making use of a majority of the available forms of interaction.

Finally, Holsti has recently argued that a state's orientation can be determined on the basis of significant changes in (a) the levels of external involvement, (b) the policies regarding types and sources of external penetration, (c) the direction or pattern of external involvement, (d) military or diplomatic commitments.²⁹ The evolution of the PRC's behavior with respect to headings (a), (b), and (c) may be of interest in relation to the evaluation of changes in its policy.

Technology. The term "technology" will refer to both hardware and know-how. It thus spans the range from the engineering products themselves to the technical knowledge involved in their conception and construction. Since technology is of utmost importance in the process of assuring economic development and growth, it has a positive connotation, and the opportunity any given country has of acquiring technology will represent an advantage.³⁰ The following definition of the term "technology" succinctly conveys the meaning of the term: "the know-how necessary for the productive functioning of an enterprise".³¹ This definition includes the concepts of process or engineering, production and management/marketing know-how. Simon argues that while other definitions of the same term may have the advantage of being more comprehensive, this particular definition is useful because it specifies not only the forms that technology may take, but also its most essential applications.³² In connection with the above, it is possible to distinguish between three "area-related" denotations of technology: (1) manufacturing technology, which is directly related to production, (2) design technology, which is related to the area of research, development and testing, etc., (3) management technology, which is related to the area covered by the organizational aspects of production: authority structure, labor motivation, mode of production, etc.³³

A distinction can be made among three different "levels of application" of technology: (1) general technology, which tends to have universal applications and is neither product nor process specific, (2) process-specific technology, which is directly related to a specific production process, (3) firm-specific technology, which applies to a particular mode of production used by an individual firm to manufacture a specific product.³⁴ Finally, when discussing the term "technology", a distinction should be made between "embodied" and "disembodied" technology. The former denotes the situation where essential know-how or other relevant information is incorporated in a product. It is assumed that when an engineering product is acquired, technological know-how is there-

by acquired, the extraction of which is presumably achieved by means of "reverse engineering". The latter form, on the other hand, indicates that technological information or know-how is not extractable from any particular item. Once acquired, the item is to be used as is by the buyer.

I.3.3 Studying Chinese politics

In the following, three ideas relevant to the present study will be examined. The first consists of selected parts of an analytical model which deals with factions in PRC politics; the second refers to what should be viewed as descriptive construct based on the reduction of a number of more complex elements; and the third refers to the Chinese concept of self-reliance.

Factional politics. Johnson has argued that the study of political activity in PRC-related studies has suffered from underconceptualization and that the paradigms which have been in use during different periods have been deficient, failing to account for some of the "anomalies" in the developments which they claimed to explain. More specifically, both the "revolution" paradigm which emphasizes the radical discontinuities between "traditional" and "communist" China, and the "modernization" paradigm which emphasizes nation/state building in China during the present century with the objective of fulfilling the goals of nationalism and economic development, have been deficient.³⁵ Much of the analysis of PRC politics over the years has been based on a number of "models". These include the "Yenan" model, which stressed camaraderie, consensus and spontaneous decision-making within the Communist movement and the "ideology and organization" model, which essentially is a more sophisticated version of the first one viewing the PRC system as a near-perfect blend of ideology and organization, of theory and action, of policy line and organizational discipline, the epitome of structural functionalism and Lenin's dream come true.³⁶ These models were succeeded by the "Cultural Revolution" model, which highlighted "spiritual incentives", "rural simplicity", "self-sufficiency" and "self-reliance", and by the "generational" model which grew out of the awareness that a succession struggle was likely to unfold in the near future. This latter model raised the question of possible forms for succession, discarding earlier consensus-based scenarios, focusing instead on potential sources of conflict.³⁷

In connection with the adoption of a conflict-oriented viewpoint, three different categories of perceptions and perspectives have crystallized during the last decade or so. They can be summarized as follows:

- (a) the perception that PRC politics and policies have little inherent continuity or even structural foundation and that they can therefore change rapidly and extensively as a result of changes in, for example, the Politburo. Specific policies are generally viewed as being independent of structure, precedent or political "memory". This perspective emphasizes that PRC politics can change, have changed and most probably will continue to change significantly.
- (b) the perception that present-day PRC politics and policies are a repetition of the more or less successful approaches that have been tried at earlier stages in PRC history. The political process is seen as dominated by the recurrent appearance of two opposed "lines" which relate to different, opposed attitudes, prescriptions and approaches. A change in policy is thereby interpreted as a change from one line to the other. This oscillation is regarded as a permanent feature of PRC politics.
- (c) the perception that PRC politics should be viewed in terms of senior, inter- and intra-elite conflict. PRC politics are perceived as dominated by the existence and activities of political factions and coalitions of factions. Policies may play the role of instruments in the conflict. Changes in elite membership, in particular at the Politburo level, are viewed as indicators of possible changes in approach or specific policies.³⁸

Since all three of the perceptions acknowledge the importance of actors in the PRC system, some of the posits regarding actors and their behavior, as formulated in Nathan's factionalism model for CCP politics, may be of interest.³⁹

The point of departure for the model is a basic link between individuals which he calls a "clientelist tie", and which he defines as "a non-ascriptive two-person relationship founded on exchange, in which well-understood rights and obligations are established between two parties".⁴⁰ The principal characteristics of a clientelist tie are summarized as follows:

- 1) It is a relationship between two people
- 2) It is a relationship especially selected for cultivation by the members from their total social networks
- 3) It is cultivated essentially by the constant exchange of gifts or services (This does not imply that the subjective content of the relationship is cynical or unfriendly: the contrary is normally the case)
- 4) Since the exchange involves the provision by each partner of goods or services the other wants, the parties to the tie are dissimilar; very often they are unequal in status, wealth or power

- 5) The tie sets up well-understood, although seldom explicit, rights and obligations between partners
- 6) It can be abrogated by either member at will; and
- 7) It is not exclusive; either member is free to establish other simultaneous ties (so long as they do not involve contradictory obligations).⁴¹

The clientelist tie is an exchange relationship of a limited and specific kind. Even if the better part of social life is based on exchange, the clientelist tie should be regarded as a special, quasi-contractual sub-type of relationship. Nathan contends that distinctions between clientelist ties should be made according to real distribution of power or "imperative coordination" within them. Thus, if for some reason the subordinate in the relation had no real choice but obedience, political behavior within the superior-subordinate relationship would be quite different from what it might be if a possibility of abrogating the tie existed.

The model stipulates that clientelist ties in any given society articulate to form complex networks which may serve a large number of functions, relating to social insurance, trade, or to the mobilization and wielding of influence (i.e. political conflict). With respect to behavior where political conflict is organized primarily through clientelist ties rather than through formal organizations, corporate lineage units, mass, or class movements, three possibilities are outlined: (1) an individual operating as a power broker by cashing in on his personal ties, (2) genuine electoral competition which has been called the "clientelist party", "vertical group" or "machine"; i.e. a mass political organization which buys electoral support with rewards distributed through a leader-follower network of clientelist ties, (3) an oligarchy or a relative small-scale setting where an individual leader mobilizes some portion of his network of primary, secondary, tertiary ties, and so on, for the purpose of engaging in politics.

Nathan states that, whereas a clientelist party consists of a large number of layers of personnel, the third type of structure consists of only one or a few layers. It is this type of structure, mobilized on the base of clientelist ties and consisting of only a few layers of personnel, that constitutes a faction. "Such configurations include what may be called simple and complex factions and may control from within or without one or more 'support structures' or power bases such as clubs, parties, mobs, newspapers, banks, ministries, armies and the like".⁴²

Structurally, a faction is composed of a number of "nodes" which are the one-to-one patterns of relationships between leaders and followers. Since a faction is based on personal exchange ties rather than authority relations, it does not become corporatized after recruitment but remains structured along the lines of the original ties which formed the bases of recruitment. The fact that upward and downward communications will follow the lines of recruitment, accounts for the faction's flexibility. This flexibility is greatest when it comes to seizing political opportunities and engaging in a general political strategy on the basis of scattered positions throughout the political system or the organization. The fact that communication also passes through "nodes", involving intermediate layers of personnel; i.e., sub-leaders, while providing a high degree of flexibility, at the same time constitutes a self-limiting element to the faction's extensiveness.

Since a faction is founded on exchange relationships, it depends for its growth and continuity on the leader's ability to assure the distribution of rewards to his followers. A faction can be expected to expand or contract with success or failure and since it cannot survive its leader, it will dissolve when the leader is removed from power.

The model posits that complex factions are most likely to develop within bureaucratic, formal organizations. The reasons for this are threefold. First, the personal loyalty of faction leaders at lower levels to leaders at higher levels is reinforced by hierarchical authority patterns. Second, the faction has the benefit of the intra-organizational communications network to aid in coordinating its activities. Third, the effort to gain control of the organization or to influence its policies requires the cooperation of the sub-leaders at the various levels and tends to bring their interests into harmony. The hierarchy, established communications and authority of the existing organization thus provide a basis on which the complex faction can build its own informal, personal loyalties and relations.⁴³

Essentially for the same reasons, however, complex factions have a built-in tendency to break down. The leader of each single faction within the complex faction has a primary responsibility to his own followers. The possibility therefore exists that his particular responsibilities may conflict with the loyalty he owes to his own leader. This tendency towards internal cleavage, it is stated, is increased by the fruits of victory.⁴⁴ Achieving victory inevitably involves making opportunistic alliances with factional leaders who

are incorporated as allies within the faction but whose loyalties are not necessarily undivided. In addition, after victory, the unifying common enemy ceases to exist, leaving the inherent divisive tendencies. As a result, division and decline of a complex faction are the almost inevitable results of success.

Given that a faction engaging in conflict with other factions must operate on the assumption that it will not be able decisively and finally to eliminate its rivals, but will have to "put up" with them, the following modes of conflict can be distinguished:⁴⁵

- 1) Since factions are incapable of building sufficient power to rid the political system of rival factions, they will have little incentive to do so. For any given faction the most important and usually most immediate concern is to protect its own base of power while opposing accretions of power to rival factions. Initiatives to increase its own power and position are of secondary importance. Defensive political strategies therefore predominate over political initiatives in frequency and importance.
- 2) When a faction does take a political initiative, it relies upon secret preparation and surprise offensive. This minimizes the ability of rivals to prepare their defensive moves in advance and provides the aggressive faction a momentum which carries it further than would otherwise be the case before the defensive moves of rivals stop its progress.
- 3) Since the political life of a factional system consists of occasional initiatives by constituent factions, followed by defensive alliances against the initiator, any given faction is obliged to enter into a series of constantly shifting defensive alliances.
- 4) The opportunistic nature of the defensive alliances make it impossible for factions to make ideological agreement a primary condition for alliance with other factions. Factions operate within a broad ideological consensus while exaggerating the small differences that remain among them. Thus, although factional alignments do not cross ideological boundaries, within those boundaries they are not determined by doctrinal differences.
- 5) When decisions (resolutions of conflict, policy decisions) are made by the factional system as a whole, they are made by consensus among the factions. To attempt to take action without achieving such a consensus would take the ruling coalition beyond the limits of its power: the decision would never be enforced. Furthermore, the effort to enforce a decision would hasten the formation of an opposition coalition to topple the ruling group from power.
- 6) Since the resources at a faction's disposal for political conflict are the resources of the individual members (their personal prestige, official positions and their own further clientelist ties), to weaken their rivals, factions try to discredit opposition faction members, dislodge them from their posts and buy away their allies.
- 7) Factional political conflict is characterized by "doctrinalism"; i.e. the presentation of factional struggle for power in terms of abstract issues of ideology, honour and face. In this process factions adopt rigid and minutely defined ideological positions, exaggerate small differences on abstract questions, and stress the purity of their own motives. Yet the issues which arouse such fierce and elaborate debate appear upon close examination to be those with strategic implications for factional power.

The functions of the debates mentioned under point 7 are multiple. First of all, they allow for the distinction of one faction from another. Second, they provide an opportunity to discredit other actors in the system and to justify oneself on abstract or ideological grounds. Third, the debates and the broad programs which are announced, often include inconspicuous provisions of true strategic political importance; the struggle, which is couched in abstract terms, really concerns the advantages of a policy to one side or the other.⁴⁶

The "two-line" struggle. This section will review some of the aspects of a descriptive reduction which has been referred to as "responsible simplification".⁴⁷ The simplification is basically concerned with the reduction to the level of a dichotomy of the number of "actors" and "options" found in the PRC polity. The result has been called the "two-line struggle" or the "model of the two lines" and has been the subject of some controversy and debate.

Generally acknowledging the essentially factional character of PRC politics, several scholars in this field have outlined a number of groupings in the political elite (on the basis of varying criteria). Domes refers to the existence of "opinion or functional/opinion groups" and lists seven such groups in the PRC elite after 1973: (1) the veteran civilian cadres who remained in office during the Cultural Revolution, (2) the veteran civilian cadres who were rehabilitated after having been purged during the Cultural Revolution, (3) the central military machine, (4) the regional military leaders, (5) the Cultural Revolutionary Left, (6) the mass organization Left, and (7) the Secret Police Left.⁴⁸ Oksenberg and Goldstein refer to a division into four main groups: the Militant Fundamentalists, the Radical Conservatives, the Eclectic Modernizers, and the Westernized Chinese.⁴⁹ These groups are placed on a scale which roughly runs from total rejection of Western influences to the general acceptance of those influences as beneficial. Lieberthal distinguishes between three major groups in the ruling elite, the "Peking group", the "Shanghai group" and the "military group".⁵⁰ Ting Wang also argues for the existence of three main groups or cliques which are referred to as the "Bureaucratic clique", the "Jiang Qing clique" and the "Third force".⁵¹ He also notes a division into civilian cadres, the military and the radical left.

What these, and other "classifications" essentially attempt to counter is the tendency to analyze PRC politics along the too simplistic lines of a "left"- "right" cleavage. Besides the fact that some of them too readily follow the

CCP's own description of events, "left" and "right", "moderate" and "radical", "utopians" and "pragmatists" are terms which in fact tend to obscure more than they clarify.

Where the characteristics of an overall approach to policies are concerned, even those who otherwise argue for the use of an elaborate perception of PRC politics have at times referred to an alternation between "radical" and "moderate" approaches since the early 1950's. This was done, however, with a distinction between actors and issues in mind.⁵² This important distinction is not made in the "two-line" perception. The simplifications contained in the two-line dichotomy are thus counter-productive to analysis in that they preclude the understanding of the nuances in opinion and position that can be distinguished in the PRC's political elite, obscure the role played by issues and the relationship between actors and issues. They further preclude the perception that factions, or coalitions of them, are the principal actors on the political scene.

The lack of analytical value of the "two-line model" has been underlined by the use made of it by the Chinese themselves. About this use of the "model" the following has been stated:⁵³

"First, it interprets the history of the emergence and adjustment of Chinese policy since 1949 in terms of a philosophical system to the use of which the Chinese leadership has long been committed. Secondly, it provides a simple, comprehensive, dramatic way to explain and justify current policy, in its relationship to earlier policy, to the Chinese masses. Thirdly, it provides an indispensable rhetorical device for explaining and justifying leadership purges at all levels, reducing what has probably been a hodgepodge of malfeasances into a dramatic, crystalline pattern of struggle over principle, (..)"

Although the "two-line" simplification is in no manner suited for the analysis of political behavior in the PRC, it does have some descriptive properties. Because of some of the characteristics mentioned above, and because of its tendency to reduce a particular development to "essentials", it can, to a certain extent, be used to illustrate the extremes of the ideological posturing which occur during the phase of intensification of a struggle. As long as the real use and function of ideological posturing are kept in mind, and assuming that the reduction of the number of factions or factional groupings can be expected to go hand in hand with the number of available "options" in a struggle, the reduction may serve to indicate where the ultimate lines of division appear to lie.

The distinction between the uses that may or may not be made of the model having been clarified, a brief review of some of the perceptions and elements included in the model may be of interest. The idea of a "two-line struggle" reduces politics to polarized terms of values, style and objectives. Central to the "two-line" dichotomization are the nature and the objectives of the Chinese revolution. Two opposing "lines" are said to have evolved, one "radical" and the other "conservative". Strictly following the dichotomy, the "radicals" represent a "virtuocracy" and have been characterized as the "priesthood of the movement".⁵⁴ The "conservatives", on the other hand, represent a "meritocracy" and have been described as the "bankers of the movement".⁵⁵ Thus, the "radicals" represent the fundamentalist and virtuous elements of the marxist revolution in the PRC, while the "conservatives" represent the planned economic and material outlook. The "radicals" can thus be expected to stress the moral pursuit of egalitarian justice and the enhancement of proletarian virtues, whereas the "conservatives" will tend to stress planning and the pursuit of material progress.⁵⁶ The questions of values, style and objectives can to some extent be summarized by the following series of opposing elements: policy formulation versus operationalization, vision versus implementation, "leader" versus "commissar", mass-line versus party-building, urban versus rural, all in a sense summed up by the ideologically pure "red" versus the pragmatic "expert".

When this dichotomization is applied to the question of policies, it follows that the materially-oriented "conservatives" can be expected to act in accordance with what could be called a "cost-benefit" analysis stressing chiefly economic elements. The ideologically-oriented "radicals" can be expected to prefer measuring cost-benefits predominantly in terms of ideological and social achievements.

Finally, the development of the PRC since its foundation in terms of the "two-line" struggle has been dominated by three areas: (1) foreign policy (including the notion of self-reliance and the question of the acquisition of foreign technology), (2) economic policy (including industrial organization, and agricultural and rural policies), and (3) education and culture. As far as economic policy is concerned, the two "lines" are depicted as being at loggerheads over the question of the delegation of planning and administration; the "conservatives" chiefly argue for centralization and the "radicals" for decentralization. The same idea pits the work-and-study model of the "radicals" against the regularized instruction approach of the "conservatives".

Self-reliance. At various times since 1949, the concept of self-reliance has taken a pivotal position in the description and explanation of developments in PRC politics and was, for example, the centerpiece of both the "Great Leap Forward" and a number of the assumptions underlying the "Cultural Revolution".

The concept of self-reliance and its basic assumptions and prescriptions are not solely related to the PRC. The concept has in fact been the subject of substantial debate for a number of years. During the past two decades or so, the subject has arisen in discussions regarding protectionism, the international division of labor, and, in particular, in relation to the question of possible distortions induced by foreign economic relations in the domestic economies of Less Developed Countries (LDCs). In the latter context, the main points of debate have been whether or not the domestic economies of LDCs can be expected to suffer; whether they have already suffered from the interaction they have with stronger economies; whether the production of the weaker economy is invariably made to serve the stronger one. In these contexts, self-reliance has been viewed by proponents as a suitable remedy for the LDCs economic problems, since it would help these countries to redress their lop-sided relationships and aid in promoting a strategy of more equitable development.

It may be added that the concept has lost part of its attraction because some of its drawbacks have become more evident (e.g. Burma's stagnant economy) and because of the economically positive developments experienced by the so-called Newly Industrialized Countries (NICs), especially in the East Asian region. The positive effects on economic growth as experienced by the NICs can largely be attributed to the extensive degree of economic, industrial, technological and financial interaction of these countries' economies with the international system.

Regardless of whether a country can or should disengage its domestic economy from the international system, the pivotal issue which underlines much of the concept of self-reliance remains to be confronted: how does an LDC manage its economic relations with other actors in the international system while keeping the disruptive effects on the domestic economy to a minimum? In somewhat more ideological terms, one can ask: is it possible for a country with an under-developed economy to develop it by accepting economic interaction, assistance or other economic inputs, from industrialized countries without irrevocably subjecting itself to a number of negative side effects? The question is particularly relevant in the case of countries which profess to be socialist

since these countries find themselves confronted not only with the possibility of "interference" at the economic level, but with a related possibility of "interference" at the ideological level as well. The desire to protect the country and its system against "contamination" has been explained as follows:⁵⁷

"....., the concept of self-reliance is often linked to pursuance of a socialist development strategy, not only because of the parallel need to assure national control over the major means of production and to restructure domestic class relationships, but also because of the resultant decrease of external pressure on the transformed relations of production."

In the case of the PRC, it may be appropriate to refer to the concepts as the dialectics of self-reliance. Dernberger had suggested that statements concerning the country's economic policy and foreign relations should be compared to a symphonic work.⁵⁸ In the comparison, self-reliance becomes the dominant theme while the more or less pronounced reliance on foreign technology represents the recurring minor theme. By definition, the dominant theme is loudly emphasized at times, while the minor theme never completely disappears. Finally, the comparison suggests that the minor theme at times threatens to take over.

Three main sources of inspiration underly the Chinese interpretations of the concept of self-reliance. Nationalism, as well as past and recent history, explain much of the controversy including some of its intensity. First, there is the historical heritage which has given rise to the conviction, apparently generally shared within the PRC leadership, that China under no circumstances be allowed to become exposed once again to the political, economic and cultural humiliations it experienced at the hand of foreign powers during the latter half of the 19th century. It should be noted that at the time these experiences produced two essentially different views regarding the course to follow in order to assure China's development. One "school" advocated introversion and reliance on the country's inherent strength thus avoiding a repetition of the previous experiences. The other "school" on the contrary concluded that the only way for China to solve its problems and come to grips with the West, was by selectively interacting with it, and learning as much as possible from it, just as in the "pupil-learns-from-and eventually-surpassed-the-master" scenario. There is thus a clear linkage between the two schools mentioned here and the views both of those who at times strongly favored virtual isolation and those in the leadership who believed in the merits of importing technology in order to aid in a rapid development.

The second important source of inspiration underlying the concept of self-reliance in PRC politics is the so-called "Yenan period". Reference to this particular period evokes the conditions imposed on the communist armies by the guerrilla-type warfare they were waging during the 1940's. The "People's Liberation Army" (PLA) had to rely chiefly on its own efforts to survive, in the process discounting outside assistance and the use of external sources of supply.

The third source of inspiration dates back to more recent history being closely related to the Sino-Soviet schism of the late 1950's. The break between the two countries was perceived by the PRC leadership as a stab-in-the-back, as the betrayal of one socialist country by another and in this particular case, of a new country by its mentor.⁵⁹

Fingar suggests that although various elements in the PRC leadership have been in disagreement about whether specific measures in fact satisfied the requirements of self-reliance, there existed a general consensus that the important goal of national independence could only be attained and maintained through a policy of self-reliance.⁶⁰ It should be kept in mind, however, that the concept has been given a number of meanings over time and from one situation to another.⁶¹ These differences refer both to the level at which self-reliance was to be implemented and to the crucial question of whether to view self-reliance as a means or as an objective: i.e. as a strategy for the achievement of economic development or as the guideline for the functioning of the domestic economy once it had become developed. This latter issue is directly tied to such matters as the development of a domestic technological capability, the availability and training of qualified personnel and the domestic generation of capital for investment. The issue thus relates to the question of whether to use foreign capabilities in these matters or not. During the past two decades, PRC policy statements have oscillated between demands for total self-sufficiency and the acceptance of foreign input through the acquisition and utilization of foreign technology and related capabilities. Implemented policy has also fluctuated, but not nearly as much as the formal or rhetorical statements.

I.4 Methodology

This study is chiefly an examination of foreign economic behavior. Its main objective is to provide an overview of the PRC's foreign economic relations,

of the evolution and changes that have taken place and of the role of these relations in connection with the acquisition by the PRC of foreign technological capability. Although a number of explanatory factors will be discussed, the study is essentially descriptive.

In order to describe developments related to the PRC's foreign trade and other forms of foreign economic activity, statistical material as complete and as reliable as possible has been used. From the outset the criteria of coverage and reliability introduced a bias against the use of PRC material in favor of non-Chinese sources. The final choice of material was simplified, when the total lack of coherent material originating from the PRC became evident. Foreign sources of information and some of the general aspects and problems related to PRC statistical material concerning its economic activities will be discussed below.

Sources of data. Sources of information with regard to the PRC's economic activities can be divided into two categories. One category contains sources based on PRC publications, news releases and broadcasts, in most cases translated by a number of organizations outside the PRC.⁶² The other category consists of sources outside the PRC including Hong Kong, Taiwan, Europe and the USA. These latter sources are also at the origin of comprehensive statistical data on foreign trade, the information coming from the PRC's trading partners.⁶³ Since 1979, a growing number of PRC publications have been released which deal both with general information regarding the economy or related topics, and with detailed discussions of specific topics at the micro level. Since 1981, the PRC has again been publishing macro data concerning its economy and trade.⁶⁴

Availability of data released by the PRC. By historical and international standards, PRC data on its economic activities have always been scarce. This state of affairs existed even during the 1950's, when the statistical handbook "The Ten Great Years" was published (1959), and when statistical information was relatively easily available. It became more evident during the 1960's when a virtual statistical blackout of macro-economic data was imposed. Since the early 1960's and until recently, no detailed documents concerning either policy or planning have been published. Data published since 1970 are so flawed as to be all but useless. For material dealing with the economy as a whole, the statistical data consists of percentage rates of growth over the preceding

year or even over pre-Cultural Revolution values, the percentages being given without bases. At the lower, provincial or factory level, information was more frequently given in absolute figures, the occurrence of percentage rates diminishing with the level.⁶⁵ While more trade figures have been published since 1970, these too are expressed in a mixture of percentages and absolute figures. Statistics for finance and trade became more abundant and varied at the more disaggregated levels and, as part of that development, some statistics on the foreign trade of certain regions became available.⁶⁶ Data pertaining to the PRC's foreign economic relations as a whole were, on the other hand, totally absent until 1979.

Reliability of PRC statistics. If statistics are to be an effective tool, they must be based on facts and reflect reality.⁶⁷ While this may sound like a truism, in the case of the PRC it has not been entirely obvious that the above requirements were met as a general rule. Thus, while availability has been a traditional problem, the reliability of what was available has constituted an even greater obstacle to its usability. As a general observation, it can be stated that politics have been the major impediment to the development of reliable statistics and a stable statistical system. Statistics can often be grist for the propaganda mill as well as a precise economic tool, but not both at the same time.⁶⁸ While some consensus exists that deliberate falsification does not occur at the central level, there are indications of it in many instances at the lower levels.⁶⁹

This distinction is important, as are some of the possible causes. If the statistical data gathered at the lower levels of the system (from the factory up to the regional level) are inaccurate, then the figures published at the central level evidently will be inaccurate, independent of deliberate manipulation. It has on different grounds been argued that while the assumption of deliberate falsification at the central level and the existence of some kind of parallel statistical system falls on its own complexity,⁷⁰ one of the main reasons for the lack of reliability of PRC statistics may have been the lack of interest in such information at the "Center".⁷¹ If little attention is paid to the accuracy of the data, then the grass-roots level can report what it pleases to the cadres, the lower levels and the local governments reporting similarly to the levels above. Consequently, the resulting statistics can serve neither to guide nor to monitor policy. Instead, they are created to suit policy.⁷² Examples of such manipulation and outright falsification in-

clude: reporting lower numbers of births than actually occurred in order to satisfy population planning guidelines; counting sub-standard products in production figures in order to exaggerate productivity and output growth; listing capital construction items under other headings to cover up growth of capital construction when central authorities order cuts in that sector; under-reporting production increases in order to balance out any future decline in production; and under-reporting inventories in order to hide the illegal hoarding of materials.⁷³

The statistical system. In most countries the statistical system; i.e., the statistical gathering and processing apparatus, is organized to provide for the checking and correction of inaccurate reports that may be submitted by the lower levels. The PRC's statistical apparatus does not follow this model for several reasons. Basically, what did exist after its creation in 1952, in the way of a State Statistical Bureau, was destroyed during the "Great Leap Forward" of the late 1950's. Statistical records were discarded and planning was based on "soap-bubbles", a practice which resulted in the collapse of the PRC economy. In 1962, a decision concerning "consolidating statistics work" was made "in order to draw a lesson from this experience, which was paid for with a high price of blood".⁷⁴ In an attempt to safeguard the position of the State Statistical Bureau, Zhou Enlai personally interceded to secure a separation of powers, forbidding the intervention of both party and government departments in statistical work.⁷⁵ The fruits of this attempt could barely be reaped before the newly built-up apparatus was dismantled with impressive thoroughness in 1967. In the following ten chaotic years nearly all statistics organs at different level throughout the country were disbanded, and large quantities of materials were burned. The statistics work of the whole country was suspended for a period of almost three years. As a result, by the late 1970's and the early 1980's, the system was still functioning far below standard.⁷⁶ During the 1967-1979 period, of the original 400 staff members of the State Statistical Bureau, 17 remained. Even by 1981 the Bureau was only staffed by 193 people.⁷⁷ How this personnel could deal with the statistics pertaining to both the foreign and domestic activity of a planned economy such as that of the PRC is difficult to comprehend.

Data regarding foreign economic relations. A communiqué by the State Statistical Bureau in June 1979 put an end to the statistical blackout on the country's economic activities. Pertaining chiefly to developments in the domestic economy, the information contained in the communiqué still did not provide

any directly verifiable data on the PRC's foreign economic affairs. The utilization of data based on trade returns, etc., provided by the PRC's trade partners was still a must. About the same time the PRC released partial trade statistics as well as trade goals for that year; however, in the absence of direct reference material, the general value of these data was rather limited.

In the present study, data provided by the National Foreign Assessment Center of the United States' Central Intelligence Agency, and material published by the Japan External Trade Organization are used extensively. Wherever necessary, material provided by the Organization of Economic Cooperation and Development (OECD) is used to verify secondary data.⁷⁸

NFAC material is important for several reasons. First, this material represents the single most comprehensive body of data on the PRC's foreign economic affairs and on its trade in particular. Second, the information contained in the statistical data has proven to be, on the whole, reliable. Third, the material provides some insight into relations between domestic economic developments and foreign economic activity. The use of JETRO material is based on fact that Japan is the PRC's top trading partner. This assumably provides JETRO with reliable and detailed information on the PRC's activities in the foreign economic field. The use of OECD material for verification is based on the perceived necessity for a complementary source of information whenever possible. One must, however, be aware that sections of the OECD information were based on data provided by both the Japanese and the US authorities.

A number of questions have been raised regarding the usability of the NFAC material.⁷⁹ While it must be remembered that the NFAC material on domestic economic developments is necessarily based on estimates, the data it provides on foreign economic relations, are the result of the compilation of reports by a total of 159 countries.⁸⁰ Data are thus obtained or estimated from trade partner statistics with no reference to the PRC's irregular pronouncements on its foreign trade. The basic source of the non-Communist trade partner data is the monthly International Monetary Fund (IMF) data. These data are in turn supplemented by official trade statistics from publications by the OECD, the United Nations and individual trade partners. With the exception of Rumania and Yugoslavia, which report to the IMF, data for the USSR and the other East European countries are obtained from the official statistics of those countries. NFAC material takes into account unrecorded trade where documentary evidence indicates that the official statistics data are inaccurate in re-

porting the actual level of trade.⁸¹ An in depth discussion of the methodology involved in the calculation of the data being beyond the scope of this section, reference may be made to a detailed discussion of this topic provided by the NFAC.⁸²

In a general sense, the resumption of the releasing of data in 1979 (chiefly concerning the two foregoing years), for the first time allowed the comparison of PRC and NFAC figures concerning domestic economic developments as well as foreign trade. While a number of dissimilarities did occur, the general impression was that NFAC estimates compared favorably. In those cases where disparities occurred, these could often be reduced to the level of methodological technicalities. In fact, one analysis states that in a number of cases the similarities were so striking, that it gave the impression that an exchange of data had occurred between the NFAC and the State Statistical Bureau.⁸³ While that same analysis contends that such an idea can be discarded, subsequent information suggesting the contrary should be taken into consideration.⁸⁴

Where the PRC's foreign trade is concerned, a comparison of NFAC and PRC data shows that in the case of PRC exports, in 1977 the NFAC estimates lay 7% over the figures announced by the PRC, in 1978 the difference was 0%, and in 1979 (first half) the NFAC figures differed from the PRC ones by -0.2%.⁸⁵ In the case of imports, NFAC figures lay 1.7% under the PRC figures, in 1978 0.8% under, and in 1979 (first half) 0.1% over.⁸⁶ When the PRC subsequently released its trade data for 1980, substantial discrepancies between NFAC estimates for that year and the PRC official figures became evident: 7.2% over in the case of exports and 10.6% over in the case of imports.⁸⁷ The NFAC itself suggests that institutional factors were at the root of the differences, arguing that new elements such as the economic activities in the so-called Special Economic Zones (SEZs), or problems of information processing at the ministerial level due to sharp increases in trade and the decentralization of the trade apparatus, may have influenced the PRC figures.⁸⁸

It should be borne in mind then, that domestically generated statistical information on the PRC's economic activities was not available for the better part of the period after the advent of the "Cultural Revolution", and that whatever information was released by PRC authorities was generally unusable because the data were fraught with methodological deficiencies and other shortcomings. The use of NFAC material regarding both domestic economic activity

and foreign economic relations, as well as JETRO and OECD material, is justified since these sources have the advantage of providing information in the form of aggregates, indexes and time-series which are reasonably reliable and complete. It could ultimately be argued that, due to the very serious deficiencies and systemic shortcomings of the PRC's statistical organization, even figures, released since 1979 should be treated with a substantial degree of caution. With all due respect to the present efforts by the PRC to rebuild a functioning and acceptably reliable statistical system, the fact that such caution is justified, is borne out by the unfortunate circumstances surrounding the compilation and subsequently halted official publication of the World Bank's Report on the PRC economy.⁸⁹

Our knowledge at present concerning the factors which directly underly foreign policy making are far from being sufficiently systematized to permit an exhaustive causal analysis.⁹⁰ This restriction to a somewhat different extent also applies to the statistical data discussed here. Therefore, in the present study, the analytical part will be confined to only a few possible explanations. By using information provided by relevant PRC-related studies, an attempt is made to demonstrate the plausability of the explanatory factors put forward in these pages and to indicate their interrelationship. The material used for these purposes includes studies concerning PRC economics, technology and S&T policy originating outside the PRC. Regarding the political aspects of the topic, the same type of material is used, supplemented by PRC sources.

NOTES TO CHAPTER I

- 1) For documents and comments concerning the Ninth Party Congress see: Peking Review, April 30, 1969, pp 16-19. For references to the "new" economic guide lines see, for example, Fingar (1980) pp 30-31 and Domes (China Quarterly 1977).
- 2) Robinson (1982) p 148. Also see: Zhou Enlai's "Internal Report to the Party on the International Situation", December 1971, in King C Chen (1979) pp 133-142.
- 3) Robinson (1982) p 148.
- 4) Holsti (1974) p 21.
- 5) Rosenau (1980) p 115.
- 6) Dougherty and Pfalzgraff (1971) p 23.
- 7) Lentner /as quoted in "Why Nations Act" (1978) p 28/.
- 8) Cohen and Harris (1975) p 416.
- 9) H. Kissinger (1977) p 3.
- 10) Keohane and Nye (1977) p 3.
- 11) Ch. Kindelberger (1977) p 3.
- 12) Cohen and Harris (1975) p 416.
- 13) Joint Economic Committee (JEC) (1972); Usack and Batsavage pp 335-370; Leo Tansky pp 371-382.
- 14) JEC (1975); Carol H Fogarty pp 730-737; Young C Kim pp 600-616; William Clarke and Martha Avery pp 500-534.
- 15) The same publications have, over the years provided a number of relevant articles by analysts well-versed in the subject.
- 16) Camilleri (1980), Gelber (1979), Chen (1979) and Copper (1980).
- 17) Fingar (1980), Robinson (1982), Whiting and Dernberger (1980), Tretiak (1981) and Harding (1980).
- 18) JEC (1978); Groen and Kilpatrick pp 607-653; Surls pp 653-670.
- 19) JEC (1978); Lardy pp 48-62; Dernberger pp 3-47. See also Eckstein (1977), Hishida (1980), T Shimakura (1982) and N Maruyama (1982).
- 20) Sigurdson (1980), Baark (1981), Volti (1982).
- 21) Pye (1981), Baum (1982).
- 22) This state of affairs is borne out by a survey of PRC related PhD dissertation as presented in the Universities Microfiches catalogue.
- 23) Heyman, Jr (1975), JEC (1982); Simon pp 514-552.
- 24) See supra note 4.
- 25) Grumm (1975) p 441.
- 26) Ibid. pp 441-442.
- 27) Cohen and Harris (1975) p 417.
- 28) Fingar (1980) pp 26-27.

- 29) K J Holsti (1982) p 4.
- 30) Kuznets (1966) p 287.
- 31) JEC (1982); Simon p 516.
- 32) Ibid. p 516.
- 33) JEC (1975); Heyman Jr p 683.
- 34) Supra note 32.
- 35) Johnson (1982) p 13.
- 36) Pye (1981) p 42.
- 37) Ibid. p 43.
- 38) Fingar (1980) pp 25-26.
- 39) Nathan (1973) pp 34-ff.
- 40) Ibid. p 37.
- 41) Ibid. p 37.
- 42) Ibid. p 40.
- 43) Ibid. p 44.
- 44) Ibid. p 44.
- 45) Ibid. p 49.
- 46) Ibid. pp 46-49.
- 47) Winckler (1976) pp 734-750.
- 48) Domes (1977) pp 473-497.
- 49) Oksenberg and Goldstein (1974) pp 1-13.
- 50) Kenneth Lieberthal (1975) pp 5-6.
- 51) Ting Wang (1977) p 3.
- 52) Parris H Chang (1975) p 176. Also supra note 46 p 60.
- 53) Nathan (1976) p 732.
- 54) JEC (1978); Whitson p 68.
- 55) Ibid. p 68.
- 56) Regarding the integration of Marxism with the Chinese culture, see, among others, Mao Zedong in "Mao Zedong's Selected Works", Vol 2, 1967, pp 250-254.
- 57) Volkoff (1981) p 2.
- 58) Dernberger (1977) p 230.
- 59) Volkoff (1981) for a discussion. Also Fingar (1980) p 6.
- 60) Fingar (1980) p 4.
- 61) Ibid. p 4.
- 62) JEC (1975); Nai-Ruenn Chen p 52. For example Joint Publications Research Service (JPRS), Foreign Broadcast Information Service (FBIS) and Summary of World Broadcasts (SWB).
- 63) Ibid. Examples are Ta Kung Pao (Hong Kong), China Newsletter (Japan) and Trade Statistics by JETRO, OECD and NFAC.

- 64) Journals such as Jingji Guanli, Jingji Yanjiu and the PRC "Handbook" of 1982.
- 65) Supra note 62 pp 54-55.
- 66) Ibid. p 56.
- 67) Egawa (1981) p 12.
- 68) Ibid. p 12.
- 69) Supra note 65 p 57, concerning the central level. See Sun Yefang (1981) FBIS - China, March 26, 1981, pp L4-L9.
- 70) Supra note 65 pp 59-60.
- 71) Supra note 67 p 12, "Center" stands for Zhongyang, the siege of central power.
- 72) Sun Yefang, supra note 69 p L5. Also supra note 67 p 12.
- 73) Ibid.
- 74) Sun Yefang, supra note 69 p L5.
- 75) Ibid. p L5.
- 76) Ibid. pp L5-L6.
- 77) Ibid. p L9. Also see Egawa (1981) p 14.
- 78) Cf: Series by NFAC on the PRC's foreign trade, et.al., as well as JETRO series "China Newsletter". OECD material consisted of statistical series provided by the OECD office in Paris.
- 79) Klatt (1979) pp 716-733.
- 80) NFAC "China: International Trade". Quarterly Review. First Quarter, 1979, ER CIT 79-001, September 1979, p 9.
- 81) Ibid. p 9. Examples of these inaccuracies include US grain exports to the PRC via Canadian ports and oil exports to the PRC from the Middle East not included in the official statistics of those countries.
- 82) Ibid. pp 10-11.
- 83) Cf. Klatt, supra note 79 p 22.
- 84) A fairly recent so-called "neibu" (internal circulation) document refers to a speech by economist Xue Muqiao, in which it is suggested that the PRC leadership during the better part of the 1970s in fact were making use of macro-economic statistics which had their origin outside the PRC. Evidently, only one country, the USA, possessed that type of information at the time.
- 85) Supra note 82 p 33.
- 86) Ibid. p 34.
- 87) NFAC "China: International Trade". Third Quarter 1980. ER CIT 81-002, March 1981, p 2.
- 88) Ibid. p 2.
- 89) The World Bank Report on the PRC. A restricted number of copies of the report were circulated. The official publication of the report, however, was halted when it was realized that part of the information contained in it was unreliable.
- 90) Cf. Michael Ng-Quinn (1983) pp 203-224.

CHAPTER II: BRIEF HISTORICAL BACKGROUND

The revolution in the PRC was probably the most extensive in history. This is certainly the case when it is measured in terms of the number of people involved and also where the relative extent and pace of some of the changes are concerned. Over the past twenty years this revolution has brought about major social and economic changes and has altered the PRC's perception of, as well as its position in, the international arena.

II.1 Some aspects of the PRC's political development

Contrary to a certain belief, the political system that emerged in 1949 and that brought about these changes, was and still is not the unified and streamlined system that it was supposed to be according to both its advocates and to some extent also, its opponents. As early as the first decade of the regime, there are indications of manifold differences of opinion within the leadership.¹ Moreover, perceptions of stable, static or even of personal rule can be questioned against the background of such developments as the "Great Leap Forward", the "Cultural Revolution" and the fall of the "Gang of Four" in 1976. These perceptions certainly do not give an accurate picture of the development and workings of the domestic political process in the PRC. PRC politics should be considered a process of conflict and compromise, or an allocative process where an easily-arrived-at consensus is more often the exception than the rule.²

In the following overview of the PRC's political, economic and foreign trade development, the post-1949 period will be subdivided into four shorter periods: 1949-1957; 1958-1960; 1961-1965; 1966-1969.

1949-1957: Consolidation and Reconstruction. The introductory observations notwithstanding, it has been shown that at the time of the foundation of the PRC in 1949, there was, for all practical purposes, a fairly well established consensus among the PRC leaders as to the immediate strategies to be pursued and the most urgent policies to be implemented.³ To a large extent, the first years were characterized by "problem-solving" policies. The basic machinery of the administration and the economy had to be put in order, and initial steps towards political transformation had to be undertaken.

The basic decisions that were made at the outset, essentially reflected domestic problems. These included perceived menaces to the new regime such as the remnants of the Nationalist armies and such phenomena as "bureaucratic capitalism", "feudalism" and "imperialism". It was also decided during that period to sign a treaty with the Soviet Union which implied political alliance and to a certain extent allegiance to the USSR, but which assured the PRC of crucial Soviet economic assistance. Solving the problems of reorganization was vital to the new Communist leadership and a period of three years, a period of consolidation, was set aside for that purpose.⁴ During this period the PRC leadership, besides initiating a massive land reform, launched a series of campaigns designed to rid the new society, including certain strata within the Chinese Communist Party (CCP), of undersirable aspects and elements.⁵ This series of campaigns against perceived domestic and intra-party enemies had a marked effect on the consolidation process, as did the Korean war, since both developments allowed the regime to strengthen domestic control mechanisms.⁶

By 1953 and the introduction of the First Five Year Plan, the PRC leadership had turned to the enormous task of economic reconstruction. It was during this period that the PRC came closest to modeling itself after the Soviet example both economically and politically. The First Five Year Plan was to be a "program of transition to socialism", and overall planning was to be carried out with joint programs of industrialization and collectivization of the agricultural sector.⁷

Although no open conflict was apparent at the outset, two, essentially different, perceptions of, and approaches to, economic development became apparent during that period. In general terms, on the one hand, there was a grouping represented by "administrators" such as Liu Shaoqi, Bo Yibo, Chen Yun and Deng Xiaoping. This grouping stood in growing opposition to a school of thought led by Mao Zedong which did not only not see the merits of "classic" administration but which went as far as making the "mobilization of the masses" its prime tool for the attainment of political goals. This mobilization was to be achieved by raising the political awareness at the grass roots level.⁸

Obvious imbalances in the First Five Year Plan led to open criticism of the policies it pursued and to the development, during the subsequent years, of an increasingly more powerful and active grouping opposed to a "conventional", planned approach to economic development. The growing level of strife between the contending perceptions within the top stratum resulted in a series of cam-

paigns. It was during this period that Mao Zedong launched the "Let a Hundred Flowers Bloom" campaign aimed at allowing intellectuals and cadres to vent criticisms. Subsequently this campaign as well as a campaign aimed at the political rectification of the CCP, allowed for the removal of these elements from the political scene.⁹ It should be noted that the administrative and production-oriented tradition inherent in the First Five Year Plan did remain strong, emerging during the 1960's as well as during the 1970's, and it can be said that it constitutes one of the central elements in the framework of reference of the present post-Mao leadership.

1958-1960: The "Great Leap Forward". The campaigns mentioned above can be regarded as forerunners of the "Great Leap Forward". This massive movement, started at the end of 1957 and basically marked every fibre of society by its intensity and its all-encompassing burst of energy.¹⁰ The radical strategy of the campaign was based on the assumption that it was possible to "leap" over one or several stages in the process of economic development. The boldness of its assumptions and the "daring" of its approach have led to the observation that it was "the sort of thing guerrilla warriors could put together".¹¹ In fact, it was the application of a Maoist system of ideological incentives, of decentralized planning in many ways reminiscent of autarky and rational utopian axioms. It produced impressive results "on paper". The figures, however, proved to lack a reality, essentially being the result of what can be called a "soap-bubble" phenomenon.¹²

1961-1965: The Post-Leap period. In addition to the disaster of the "Great Leap", and compounding other domestic problems and internal strife within the CCP, the USSR announced in the summer of 1960 that it was severing its ties with the PRC and, therefore, also withdrawing its economic assistance.¹³ The withdrawal was the result of a growing schism which had been putting the two countries ever further apart for some time. In addition to a number of divergences which had been present from the outset, and which had never really been solved, there was a growing mutual criticism with respect to policies and the political "line" pursued by the other: the USSR criticized the "Great Leap" and the entire political philosophy underlying the campaign and was in turn labeled "revisionist" by the PRC.

This conflict had a profound influence on the ideological grounds and the actual implementation of subsequent PRC policies. The interpretation of the conflict by the PRC leadership was characterized by the stress placed on the

need for greater self-reliance and on the necessity of a revision of pursued domestic economic policy. Zhou Enlai's "Program of Re-adjustment" which was formulated shortly after the split, was an attempt to come to grips with some of the basic sources of constraint: the approach for the first years of the 1960's was to be marked by the scaling down of the over-emphasis on industry and would recognize the importance of the agricultural sector in PRC economics. As conventional planning was to be restored, the program can be viewed as an attempt to "return to normal".

1966-1969: The "Great Proletarian Cultural Revolution". The "Cultural Revolution" represented an unprecedented phenomenon without equivalent in the history of the PRC, the CCP, or any other Communist movement. It was a "super campaign" which stretched roughly from May 1966 to mid-1969. The situation brought about by the campaign was on several occasions close to anarchy; but in spite of the movement's dimensions and diversity, it remains an open question whether over-all control really was lost. When Mao Zedong, and those in the top stratum who supported him, moved against their most outspoken critics at the end of 1965, they evidently encountered more support from them, both in the CCP and in the state bureaucracy, than was anticipated. This initial set-back appears to have triggered the subsequent effort to raise support outside the party.

Since what was at stake was the central and important issue of the future path of development of the PRC (with far-reaching implications in terms of core political values and approaches) and the subsequent distribution of power, the contention virtually tore the country apart and left its traces at all levels of the system:¹⁴

"what was at stake in the crisis,....., were the original options of Chinese Communism outlined at Yen-an and again during the Great Leap Forward: the mass line, the rejection of a society of order and conservatism which could only fall into capitalism and revisionism, the conviction that class-struggle therefore would continue during the period of transition toward socialism, and that the new bourgeoisie could be just as deadly as the old bourgeoisie, and also the conviction that the institutions of socialism meant nothing without an ideological revolution in political consciousness."

One of the first moves of the grouping was to secure control over the various branches of the propaganda apparatus at all important levels, followed by a gradually mounting attack against the party. The substantial backing provided by the People's Liberation Army (PLA) and its loyalty to Mao Zedong and his

allies were instrumental in the execution of the initial moves.¹⁵ The fact that the campaign was successful and that it was attaining some of its principal objectives became evident by 1967 when the CCP had ceased to function as a party, many of its major officials having been denounced, jailed or otherwise eliminated. It was also at this point that the movement started to show signs of gradually growing out of control:¹⁶

"Though Zhou Enlai and the other moderates had succeeded at first in keeping the Red Guards out of the factories and the countryside below the county level, the Cultural Revolution in its final phase was spread among workers in industry and into rural districts."

New attacks, at lower levels, by Red Guards and other radical elements led to such an extent of civil strife that the PLA now had to be called upon increasingly often to restore order. This had noteworthy and politically far-reaching consequences:¹⁷

"It was easier to bring in army officers and zealous newcomers than it was to create effective administrations. By the summer of 1968, renewed attacks on senior personnel led to further violence and still more authority being given to the PLA. The attack on the party had given civil powers to the army."

A discussion as to whether or not the PRC at the end of the "Cultural Revolution" was subjected to a factual rule by martial law; i.e., a military takeover, is beyond the scope of this very brief overview. Suffice it to say that by the time of the 9th Congress of the CCP in 1969, the situation was in all essence contrary to Mao Zedong's dictum that the party command the gun and that the gun never be permitted to command the party. When the militant phase of the "Cultural Revolution" came to an end, it had shattered the party organization from top to bottom, reinforced and fuelled deeply entrenched factionalism, destroyed any left-over pretences of unity within the CCP and unravelled the social, economic and educational fabric at various levels.¹⁸ It had fostered and nourished hatred, pitting "Red Guards" against cadres and factional coalition against factional coalition. Above all, it underlined that, since there existed fundamental differences as to the methods and means best suited to assure the PRC's development, whichever cluster of factions ultimately dominated in the post-Mao Zedong era, it would this time have to thoroughly incapacitate its opponents in order to achieve its objectives.

II.2 Some aspects of the PRC's economic development

The ideological controversies touched upon above were obviously closely tied to issues regarding domestic economic policy and to the PRC's perception of its foreign economic relations. In the following section dealing with the economic development of the PRC, the same periodization as above will be used.

1949-1957: Restoration and the First Five Year Plan. The Communist leadership, in 1949, inherited an economy which was performing far below capacity. It was war-torn, inflation-plagued and totally disorganized. The transportation system was disrupted, causing food shortages and the lack of supplies of raw materials. Everyday commerce and industry had, for all practical purposes, collapsed due to the disappearance of many business and administrative leaders.¹⁹ While deferring some of its goals of political remolding in order to be able to make use of the talents of experienced non-Communist man-and brain power, the new regime set out to restore the economic infrastructure in order to boost production capacity in the crucial industrial sector. Simultaneously, the debut of the new regime in the agricultural sector was marked by a merciless and heavy-handed land reform.²⁰

The attempts at restoring the economy to operating levels were fairly successful and the PRC's involvement in a major war turned out to be a mixed blessing:²¹

"The Korean War clearly aggravated China's scarcity problem, since many consumer goods, particularly food and clothing had to be diverted to the Korean front. However, this was counter-balanced, at least to some extent, by the fact that the Korean War commanded large-scale support and made it easier for the new regime to use patriotic appeals to mobilize resources."

In 1953, the period of restoration was succeeded by a vast program of industrialization. This required an enormous organizational effort as the economy, in practical terms, had been functioning on the basis of ad hoc, or at best, very short-term plans. Thus a start was made with the implementation of the First Five Year Plan. One of the most important elements underlying this Five Year Plan as well as the re-building and initial development of the PRC's economy, was the aid extended by the USSR during this period. One of the favored forms of this aid was the transfer of complete plants, while at the same time several thousands of technicians and scientists were sent to the USSR for training.²² Once this program got under way, it took on gigantic proportions and has been described as the most massive and comprehensive transfer of technology in modern history.²³

The scope of the Plan was set very wide representing a significant change, a turning point, in the economic development of the PRC. It implied the adoption of a Soviet planning system, "lock, stock and barrel", with the result that the PRC became a command economy. Briefly, this type of economic system is characterized by the following traits: the collectivization of the agricultural sector, Five Year Plans administered by a very large bureaucratic organization of planning bodies and an array of economic ministries, and a pronounced emphasis on heavy and military-related industries. All in all, the First Five Year Plan was a success. The PRC experienced an unusually fast growth in industry and in economic development in general. The overall economic development, however, was subject to a persistent imbalance: the lagging behind of the agricultural sector.

Table 1 Selected indicators of the First Five Year Plan²⁴

Item	1952	1957
GNP (billions)	\$ 59	\$ 82
Population (millions)	570	642
GNP per capita	\$ 104	\$ 128
Grain (million metric tons)	154	185
Steel (million metric tons)	1.35	5.35
Foreign trade (billions)	\$1.89	\$3.06

1958-1960: The "Great Leap Forward". The 1958-1960 period was totally dominated by the nation-wide attempt to achieve "instant" results in the various sectors of the economy. The Second Five Year Plan which was to have started in 1958 was superseded by the "Great Leap" campaign one of the objectives of which was to come to grips with the sluggish agriculture. The relative importance of this initial objective has been described as follows:²⁵

"(...) the Chinese leaders may have been considering some readjustment in the balance to be maintained between the development to be given to heavy industry on the one hand and to agriculture and consumer goods on the other. Many of the Chinese leaders seem to have drawn the conclusion that the unhappy experiences of 1956 had proved the disastrous effects of aiming at too high a rate of expansion for heavy industry without balancing this with a corresponding development in agriculture and consumer goods industries in order to mop up the surplus purchasing power."

Those within the leadership in favor of a radical departure from the "conventional" planning approach were thus determined to step up the pace of growth in the agricultural sector while at the same time maintaining and

even accelerating the pace of industrialization. Mao Zedong, as leader of this "radical" grouping, seems to have been convinced that both these tasks could be accomplished simultaneously by means of an all-out effort. The resulting drive has been described as follows:²⁶

"Instead of being content with the excellent strategy and considerable gains of the First Five Year Plan, the government under Mao became impatient with the pace of growth and dissatisfied with the wholesale aping of the Soviet model. The policy of a forceful but rapid expansion in the heavy industrial capacity was replaced by a policy of cramming a decade of industrialization into one or two years."

The all-out effort, the policy of extreme self-reliance which led to autarky and duplication, the preposterous objectives and production targets were compounded by a series of unforeseen events which combined to turn the campaign into a disaster.

Table 2 Selected indicators of the "Great Leap Forward"

Item	1957	1958 high Leap	1961 (Post- Leap Collapse)
GNP (billions)	\$ 82	\$ 95	\$ 72
Population (millions)	642	658	701
GNP per capita	\$ 128	\$ 144	\$ 103
Grain (million metric tons)	185	200	160
Steel (million metric tons)	5.35	13 (1960)	8
Foreign trade (billions)	\$3.06	\$4.29 (1959)	\$2.68 (1962)

(see supra note 24)

1961-1966: An attempted return to orthodoxy. The failure of the "Great Leap Forward" and the concurrent split between the PRC and the Soviet Union, put a stranglehold on the economy. The situation was generally close to disaster and the best way out appeared to be a rapid reversal to orthodoxy and the better known realm of planned economic development. The "conventionalists" staged what amounted to a turnabout in some of the central policy areas in an effort both to contain the scope of the negative developments and to stave off the potential breakdown of the regime.

One of the most urgent problems facing the country was a situation in some areas of near starvation. To alleviate the pressure on the agricultural sector, the PRC imported some 5 million tons of grain annually during the opening years of the decade. Parallel to this measure, the agricultural sector expe-

rienced an uninterrupted growth which in turn provided other sectors of the economy with crucial stimuli. The period was marked by a rapid expansion of chemical fertilizer production capacity involving the acquisition and construction of large-scale foreign plants and the domestic development of small-scale plants.²⁷ Supplementing this development, the country experienced a remarkable growth of small and medium-sized industries closely linked to agriculture and based in the countryside.

"The encouragement of small-scale industries in rural areas in China is an essential element of regional development programs which today focus on agricultural development and diversification, local raw material utilization, resources mobilization and long-term employment impact."²⁸

The attempt at readjustment in many ways achieved its objectives. The share of investments injected into the agricultural sector was of such proportions as to enable it to keep abreast of the growth in population. In a parallel development, an effort was made to do away with useless industrial output, while a number of priority industries saw rapid expansion. The steady development of the economy is general, as well as its growth rate were, to some extent, linked to the PRC's renewed attention to its foreign trade. It was during these years that the country steadily increased its imports of foreign technology from non-Communist countries, particularly from Japan and the West European countries.

Table 3 Selected indicators of the 1961-1966 period

Item	Post Leap Collapse	1965
GNP (billions)	\$ 72	\$ 97
Population (millions)	701	751
GNP per capita	\$ 103	\$ 129
Grain (million metric tons)	160	190-195
Steel (million metric tons)	8	11
Foreign trade (billions)	\$2.68 (1962)	\$3.88

(see supra note 24)

1966-1969: The "Great Proletarian Cultural Revolution". The process of re-adjustment of economic policy which led to substantial recovery and pulled the PRC out of the disastrous aftermath of the "Great Leap Forward", was interrupted in 1966 by the outbreak of the "Cultural Revolution".²⁹ As was pointed out in the preceding section of this chapter, the campaign was intended primarily as an ideological and political movement. Nevertheless,

despite the fact that the "conventionalists" tried to limit its impact on industrial and agricultural performance, it did have certain tangible consequences:³⁰

"The Cultural Revolution had very few disruptive effects in agriculture as far as we can tell. However, unfortunately this was not the case for industry, transport and foreign trade."

The factional disputes which raged at lower levels in 1967 and 1968 led to varying degrees of interruption in industry. As a result of the total disarray in the transport sector (which led to severe shortages in raw materials) many factories were forced to decrease their level of production substantially. Despite these disruptive tendencies inherent in the campaign, they had rather short-lived effects, mainly in the form of a downward trend in economic growth during the late 1960's.

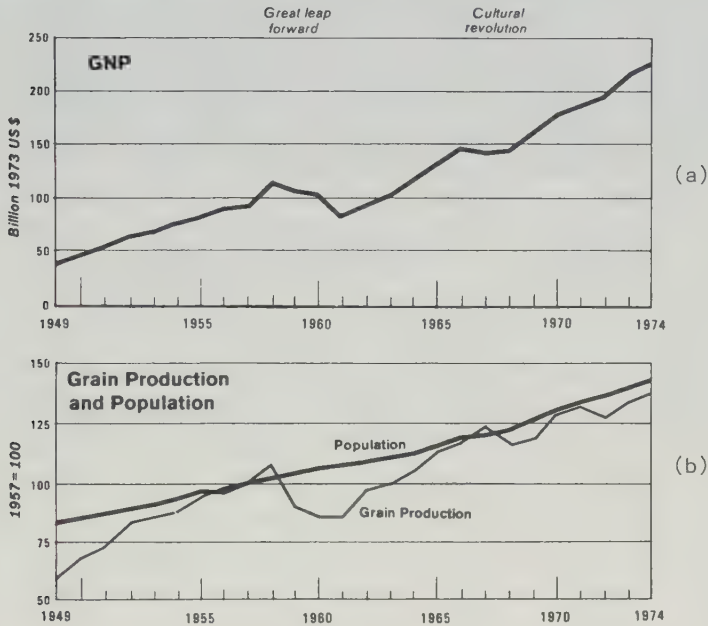
Table 4 Selected indicators for the "Cultural Revolution"

Item	1965	1966	1967-1968	1969
GNP (billions)	\$ 97	\$ 105	\$ 100	\$ 109
Population (millions)	751	766	791	818
GNP per capita	\$ 129	\$ 137	\$ 127	\$ 134
Steel (million metric tons)	11	13	11	15
Foreign trade (billions)	\$3.88	\$4.24	\$3.83	\$3.86

(supra note 24)

The aftermath of the "Cultural Revolution". The 9th Congress of the CCP in 1969 marked the end of the militant phase of the "Cultural Revolution". Decisions taken there essentially implied that planning was again to become the task of centrally controlled organizations and was to be executed under the supervision of the CCP. This return to central planning was stressed by Zhou Enlai in particular. He also indicated the existence of a Fourth Five Year Plan, the exact content of which was never specified. It was nevertheless clear that the central themes stressed the increase of both agricultural and industrial production rates and that a more important role was to be assigned to foreign economic relations. The development of the latter was to serve the promotion of the former. These central themes were to be repeated time and again, at varying intervals and with varying intensity until they crystallized in a program of stepped-up general development announced in 1975 which became known as the "Four Modernizations".

Figure 1 PRC: (a) Basic Economic Trends, (b) Grain Production/Population Growth³



II.3 The evolution of the PRC's foreign economic relations

After the establishment of the Communist regime and the foundation of the PRC in 1949, the leadership acted in order to establish state control over the country's foreign economic relations. While this development progressed more or less rapidly in different areas, the abolition in 1956 of private import-export companies completed the initial phase of the socialist reform of the economy.

Ever since the establishment of the PRC, its ideological foundations have to a measurable extent affected its approach to foreign economic relations. In accordance with the professed central guidelines of its socialist economy; i.e., independence under the control of the state proletarian dictatorship, equality and mutual benefit under Marxist leadership, and planning and uniformity under state control, the PRC formulated its fundamental principles regarding foreign economic relations as: independence and self-reliance,

equality and mutual benefit and supplying each other's needs.³² Put somewhat differently, this meant that trade was to be structured to enable economic development for both partners, that the PRC considered itself opposed to any line of action which would bring the economy of another country under its control and finally, that trade was essentially supposed to play a subordinate role in the developmental process carrying out the state's planned importation of raw materials, technology and other necessary goods.

Although the above-mentioned principles served as guidelines for the PRC's behavior in its foreign economic relations, the actual implementation, over time, has been characterized by a noticeable flexibility, in many ways the result of changes in both the domestic and international situation. It should be borne in mind, however, that tangible and negatively perceived influences of foreign actors (during the 19th century, the beginning of the 20th century and, to a considerable extent, during the 1950's) have led the Chinese leaders to assign foreign economic relations a relatively low priority on the national economic/political scale, the importance of those relations fluctuating over time, being linked to their degree of real or ideological utility. Supplementing this, China's geographic, demographic and geological predispositions have historically reinforced the perception of the country's ability to pursue a more or less self-contained development.

The above notwithstanding, it is undeniable that imports have played an essential role in the growth and stabilization of the economy. However, and in close relation to that observation, it should be noted that the degree of foreign economic intercourse constituted a source of tangible controversy within the leadership, the options spanning the range from a high degree of self-reliance to substantially expanded foreign economic interaction.³³

While keeping in mind the general outline of the sub-periods used in the preceding sections, the following description of the PRC's foreign economic relations will be made on a decennial basis.

The 1950's. Following the success of the program of restoration, the PRC in 1953 implemented the First Five Year Plan. During that period, the development of the economy was based on the slogan "Learn everything from the Soviet Union", and the PRC's foreign economic relations developed according to the principle of "exports are for imports and imports are for socialist economic construction". Foreign trade was geared to the necessities and demands of domestic economic

development and aimed at taking into account both the factors of import demand and of export capacity while adhering to the crucial tenet of a balanced foreign trade.

The PRC's economic relations with the countries of the Communist bloc grew steadily throughout the decade and were characterized by the importation of large amounts of capital goods as well as chronic import surplus and foreign exchange problems.

Table 5 PRC foreign trade volumes: 1950-1960 - Block-wise trading partners³⁴
(million US \$)

YEAR	Total trade			Communist bloc				Non-Communist bloc			
	Exp.	Imp.	Total	Exp.	Imp.	Total	(%)	Exp.	Imp.	Total	(%)
1950	620	590	1 210	210	140	350	28.9	410	450	860	71.1
1951	780	1 115	1 895	465	510	975	51.5	315	605	920	48.5
1952	875	1 015	1 890	605	710	1 315	69.6	270	305	575	30.4
1953	1 040	1 255	2 295	670	885	1 555	67.8	370	370	740	32.2
1954	1 060	1 290	2 350	765	970	1 735	73.8	295	320	615	26.2
1955	1 375	1 660	3 035	950	1 300	2 250	74.1	425	360	785	25.9
1956	1 635	1 485	3 120	1 045	1 010	2 055	65.9	590	475	1 065	34.1
1957	1 595	1 430	3 025	1 065	870	1 935	64.0	530	560	1 090	36.0
1958	1 910	1 825	3 735	1 250	1 100	2 350	63.0	660	725	1 385	37.0
1959	2 205	2 060	4 265	1 595	1 365	2 960	69.4	615	695	1 310	30.7
1960	1 945	2 030	3 975	1 320	1 285	2 605	65.5	625	745	1 370	34.5

The growing gap in the country's balance of trade was filled with loans provided by the Soviet Union, a development which made the PRC even more dependent on its ideological mentor. Table 5 shows that the predominance of intra-Communist bloc trade became increasingly evident during this period, accounting for approximately 70% of the PRC's foreign trade volume. The PRC's trade began to level off by the mid-1950's after having increased year after year, and reached a high of US \$ 4,265 million in 1959.³⁵

The 1960's. The schism between the PRC and the USSR and the setbacks caused by the "Great Leap Forward" campaign, combined to bring about a noticeable decline in the PRC's foreign trade. These factors further led to some fundamental changes in the PRC's foreign economic relations in general.

As is illustrated in Table 6, there was a shift in trading partners. The share of non-Communist countries in the PRC's total trade rose from approximately 34% in 1960 to about 80% in 1969. Secondly, there was the decline in total trade volume in the beginning of the decade, starting in 1960 and continuing to 1962, when it fell to US \$ 2,675 million, approximately 70% off, compared to 1959.

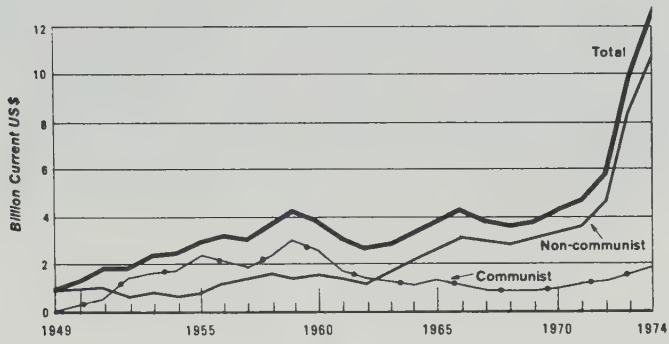
Table 6 PRC foreign trade volume: 1961-1969 - Bloc-wise trading partners³⁶
(million US \$)

YEAR	Total trade			Communist bloc				Non-Communist bloc			
	Exp.	Imp.	Total	Exp.	Imp.	Total	(%)	Exp.	Imp.	Total	(%)
1961	1 525	1 495	3 015	965	715	1 680	55.7	560	775	1 335	44.3
1962	1 525	1 150	2 675	920	490	1 410	52.7	605	660	1 265	47.3
1963	1 560	1 200	2 755	820	425	1 245	45.2	740	770	1 510	54.8
1964	1 770	1 475	3 245	730	395	1 125	34.7	1 040	1 080	2 120	65.3
1965	1 955	1 740	3 695	645	480	1 125	30.5	1 310	1 260	2 570	69.5
1966	2 170	2 035	4 205	595	505	1 100	26.2	1 575	1 530	3 105	73.8
1967	1 915	1 945	3 860	460	340	800	20.7	1 455	1 605	3 060	79.3
1968	1 890	1 820	3 710	460	340	800	21.7	1 430	1 480	2 910	78.4
1969	2 060	1 825	3 885	460	325	785	20.2	1 600	1 500	3 100	79.8

This period also witnessed the first massive imports of grain, forced upon the country by harvest failures. Fertilizer imports in the early 1960's and the importation of complete so-called "turn-key" plants and other technology from Western Europe and Japan contributed to the revival of foreign economic relations after the stabilization of the economy in 1963.

In a parallel development, came the gradually growing rhetorical emphasis in the statements in the media on the principle of self-reliance. Initially this call for self-reliance was interpreted as a demand for the spreading of imports over a variety of suppliers but, when it was integrated with the increasingly anti-foreign traits of the "Cultural Revolution", the effect was a pronounced cutback in imports and a concurrent emphasis on the development of domestic import substitutes.

Figure 2 The evolution of PRC foreign trade: 1949-1975



NOTES TO CHAPTER II

- 1) Oksenberg (1971) p 84. Also Cf. Chesneaux (1979) p X and p 31, and Domes (1974) p 21.
- 2) Domes, *ibid.* Further see Fairbank (1979) p 360. It should be noted that the present reasoning is partly based on hindsight, as many other elements in historical analysis are. Since the Chinese allow themselves a large degree of freedom in re-writing their own history, an exact definition will remain elusive. Cf. "Resolution on the CCP history 1949-1981". Foreign Language Press, Beijing 1981, 1st Edition.
- 3) Chesneaux (1979) p 31. Also Clubb (1972) p 316 and Waller (1970) pp 127-130.
- 4) Clubb (1972) p 316. Also *supra* note 3 and Chai (1969).
- 5) Clubb (1972) p 319. Also, Cf. Fairbank (1979) pp 373-375. Estimates range from 2 to 5 million people killed.
- 6) Chesneaux (1979) p 49 and Fairbank (1979) p 393. The joint implementation of the two campaigns, the "anti-five" and the "anti-three" campaigns, has been interpreted as a conscious effort to curb tendencies towards the emergence of a new bureaucratic "bourgeoisie" of cadres, but also as a general effort to tighten up society in order to increase control. Also see Eckstein's discussion of this point (1977) and Barnett (1964) pp 125-134 and 135-171.
- 7) Fairbank (1979) p 393, Chesneaux (1979) p 56, Barnett (1964) p 269-ff.
- 8) Clubb (1972) p 328 and Fairbank (1979) p 400. Also Cf. Ashbrook (1972) and Heyman Jr (1975).
- 9) As a matter of fact, the anti-rightist campaign following the criticism, led to the dispatch of hundreds of thousands of cadres and intellectuals to the countryside for "re-education".
- 10) One of the effects of the campaign was the implementation of yet another campaign leading to the "downward transfer" of teachers, students, and city cadres to the countryside in an effort to prevent a "separation from the masses". Supplementing effects were the afflux of manpower to agriculture and the reduction of urban unemployment. See Bernstein (1977) p 2 who gives a figure of 1.2 million as having been resettled in the countryside for the period 1957-1966.
- 11) Fairbank (1979) p 400. It is pointed out that the attainment of specific goals, in this case economic transformation, through campaigns organized and populations mobilized as in war and the similarity of the language used with military terms is striking. Also Cf. Hsia (1961).
- 12) Clubb (1972) p 358 and Waller (1970) p 137. Planning during this period was decentralized, as were many other functions. This led to the "soap-bubble" phenomenon, where targets set at the local level and the results obtained there were added without discrimination, in fact inflating the actual results. Parallel to the localized planning, many of the projects undertaken during this period bear witness to the rational-utopian character of the campaign. This way of thinking can be exemplified by the following: "if planting at a given distance leads to a given result X, then planting at half the distance will result in 2xX", "sparrows cause a loss of grain by eating it, therefore exterminate sparrows in order to stop the loss".

- 13) Clubb (1972) p 366 and Chesneaux (1979) p 111. In 1959 Peng Dehuai was replaced by Lin Biao. Mao himself was forced to concede that serious errors had been made. Sometime later, the People's Daily indicated that there were severe shortages of food as well as clothing. Fairbank (1979) p 415 writes:
"Seldom had faith been frustrated on so vast a scale: by the 1960's the Chinese people had learned to co-exist with the CCP regime, as they had with autocracies in the past, but the initial enthusiasm of the revolution had been spent. Meanwhile the party leaders, who had risen to power through their 'love for the masses', and to 'serve the people' found themselves in a position of new rulers in hard times, feared and distrusted accordingly, up against intractable problems and less united in their own councils."
- 14) Chesneaux (1979) p 138.
- 15) It was the logistical support provided by the PLA which made possible the transport of approximately 13 million Red Guards, first to Peking for mass demonstrations and then their dispersal to the countryside. See Domes (1970) pp 77-ff and Fairbank (1979) pp 436-ff.
- 16) Fairbank (1979) p 437.
- 17) See JEC (1972); Jones pp 52-61. Also Clubb (1970) p 422.
- 18) The author is aware of the fact that the Chinese themselves are prone to explain the controversies which divide them in terms of a "two line struggle" and does not subscribe to this simple "explanation" of PRC politics.
- 19) Cf. JEC (1975); Field pp 146-147 as well as Craig pp 289-311.
- 20) JEC (1972); Ashbrook p 16.
- 21) Eckstein (1977) p 197 and also pp 74-76. Book-keeping and accounting were not always established traditions at this level and one can easily see the problems this represented: the availability of a set of figures and accounts is essential since it is the prime requisite of economic planning, and the prime requisite of planning in general is planning at enterprise level, of course supplemented by the enforcement of plan performance at that specific level.
- 22) JEC (1972); Ashbrook p 17.
- 23) Cf. Heyman Jr (1975) (a).
- 24) Tables 1 through 4 from JEC (1972); Ashbrook pp 19, 23, 25 and 30.
- 25) Hughes and Luard (1961) p 65.
- 26) JEC (1972); Ashbrook p 20.
- 27) JEC (1975); Sigurdson pp 416-417.
- 28) Ibid. p 411.
- 29) Cf. JEC (1975); Jones p 53. The author points out that the development which led to the "Cultural Revolution" in many ways was a personal one. Mao Zedong had many accounts to balance from the early 1960's. Not only had many of his ideas about ideological motivation and other political aspects been rejected, but he moreover felt he was being treated like a "deceased old uncle", as he put it.
- 30) Eckstein (1977) p 204.
- 31) JEC (1975); Ashbrook p 25, Figures 1 and 2.

- 32) Cf. JETRO "A Business Guide" (1979) p 67.
- 33) For a more detailed discussion of some of the elements underlying the PRC's foreign economic relations see: Eckstein (1977) pp 235-ff, Barnett (1981) pp 150-ff. See also JEC (1972); Usack and Batsavage pp 335-ff.
- 34) JETRO (1972) pp 31-32.
- 35) Eckstein (1977). See pp 246-248 for a discussion of trade in relation to the country's national income in real terms.
- 36) Supra note 34.
- 37) Supra note 31.

CHAPTER III: THE PRC'S FOREIGN ECONOMIC RELATIONS DURING THE 1970'S

In many ways, the ten years between 1972 and 1981 have represented a period of remarkable change for the PRC. During the opening years of the decade and the aftermath of the militant phase of the "Cultural Revolution", the PRC became progressively more active and involved internationally through such developments as the rapprochement with the United States, the normalization of its relations with Japan and its entry into the United Nations. It has lately widened this involvement by means of its membership in the World Bank and the International Monetary Fund (IMF). On the domestic scene, the country witnessed the disappearance of its political portal figures, Mao Zedong and Zhou Enlai, the fluctuating fortunes and growing significance of Deng Xiaoping, as well as the turmoil of the 1976-1978 struggle for power subsequent to Mao Zedong's death. The country further saw the gradual and significant reformulation of its stance on an issue of great importance: its economic interaction with the rest of the world.

In spite of the lack of specific "proof" it is nevertheless fairly plausible that a segment of the PRC's top political strata, in favor of an orderly and planned economic development and led by Zhou Enlai, reformulated the order of importance of a number of core political issues in PRC politics. Modernization and economic development policy specifically geared to that objective were to be given top priority even if this entailed the risk of having to supersede a number of ideological goals. Modernization and a coordinated economic policy made a sine qua non out of the expansion of the PRC's foreign economic relations since expanded economic interaction could be expected to serve those objectives in a number of ways. Above all, it would provide the country with a market for its exports and would increase its access to modern technology.

The revision of the PRC's stance (a matter which obviously had great significance in terms of domestic political repercussions affecting as it did some of the core values in PRC politics) and the relegating of a number of core Maoist notions to the realm of secondary importance, quite naturally had to result in a reaction. As it turned out, it resulted in a marked and increasingly hostile countermovement which consisted of those who, for various reasons, perceived the new approach as undesirable. The resulting strife over both the desirability and the ideological acceptability of the altered stance was to go on from approximately 1974, steadily increasing in intensity and significance as other

political considerations and objectives fed into it. It culminated in the fall of the so-called "Gang of Four", in the struggle for power within the new dominant grouping and in the final changes in approach after December 1978.

III.1 Implemented policies: 1972-1976

As was indicated, the PRC's altered stance on its relation with the international system was heralded by a number of developments on the diplomatic front, in particular: the normalization of relations with Japan; the establishment of diplomatic ties with a number of other Western countries; the country's entry into the United Nations, and the opening moves in the re-establishment of working relations with the United States. With respect to the changing attitude concerning foreign economic relations, the re-activating of the China National Technical Export-Import Corporation at the end of 1972 was perceived as an important indicator.¹

Table 1 shows that the PRC's trade soared from US \$ 4.3 billion in 1970 to US \$ 6.0 billion in 1972. The most noticeable leap, however, appears between 1972 and 1973. This period saw an increase by a staggering 70%, from US \$ 6.0 billion to US \$ 10.3 billion.² By 1974, however, the trade boom had to a considerable extent been affected by world inflation and recession. The comparatively modest 39% increase between 1973 and 1974 is largely accounted for by higher prices, real term growth being approximately 10%.³ Measured in the same terms, the PRC's trade turnover for 1974 is approximately 75% higher than the 1970 level. Between 1974 and 1976 growth in trade turnover clearly stagnated.

Table 1 Development of PRC trade turnover: 1970-1976⁴
(billion US \$)

	Exports	Imports	Balance
1970	2.1	2.2	-0.2
1971	2.5	2.3	0.1
1972	3.2	2.8	0.3
1973	5.1	5.2	-0.2
1974	6.7	7.4	-0.8
1975	7.2	7.4	-0.2
1976	7.2	6.0	1.2

Despite the resumption of annual trade agreements with the USSR, and improved economic relations with Eastern Europe (notably with Rumania in a move which possibly reflected Beijing's approval of Bucharest's independent role within the bloc), the major share of trade growth came from relations with non-Communist countries. Following the trend initiated during the 1960's, trade with this group accounted for approximately 85% of the PRC's trade in the early 1970's.⁵ It should be remembered that the value of the trade expressed in current US dollars is in fact deflated by the effects of the devaluation of the US dollar in 1972, as well as the general increase of prices in the West. Growth in real terms was nevertheless substantial since trade with the non-Communist countries expanded by approximately 80% for the period 1970-1973, expressed in 1970 dollars.⁶

Table 2 PRC balance of trade: Communist and non-Communist Countries: 1970-1976
(million US \$)

	Total Trade				Communist Countries				Non-Communist Countries			
	Total	Exports	Imports	Balance	Total	Exports	Imports	Balance	Total	Exports	Imports	Balance
1970	4 325	2 080	2 245	-165	860	480	380	100	3 465	1 600	1 865	-265
1971	4 765	2 455	2 310	145	1 085	585	500	85	3 680	1 870	1 810	60
1972	6 000	3 150	2 850	300	1 275	740	535	205	4 725	2 410	2 315	95
1973	10 300	5 075	5 225	-150	1 710	1 000	710	290	8 590	4 075	4 515	-440
1974	14 080	6 660	7 420	-760	2 435	1 430	1 010	420	11 645	5 230	6 415	-1 185
1975	14 575	7 180	7 395	-215	2 390	1 380	1 010	370	12 185	5 800	6 385	-585
1976	13 255	7 250	6 005	1 245	2 345	1 240	1 105	135	10 915	6 015	4 900	1 115

(see supra note 6)

The upsurge in trade in the early 1970's originated in the expansion of imports, largely accounted for by the heavy buying of machinery and metals. When this progressively led to a hard-currency deficit, the PRC spurred exports substantially which accounts for the surplus in 1971. The reactivating of the National Technical Export-Import Corporation had a noticeable effect. By 1972, contracts for large volumes of transport equipment and machinery had been signed. In a parallel development, there was an increase in inquiries for complete so-called "turn-key" plants. The first contracts for this type of technology import were

signed at the end of 1972 as part of the PRC's attempt to promote the expansion of key industrial sectors such as steel, petro-chemicals, chemicals and fertilizers. 1973 saw a high of US \$ 1.2 billion worth of plant contracts, out of a total which has been estimated at between US \$ 2.6 billion and US \$ 4.3 billion.⁷

Table 7 The Commodity Composition of PRC imports: 1970-1976⁸
(million US \$)

	1970	1971	1972	1973	1974	1975	1976
TOTAL	2 245	2 310	2 850	5 225	7 420	7 395	6 005
Foodstuffs	395	320	510	1 080	1 600	900	565
Of which:							
Grain	280	215	345	840	1 180	675	325
Sugar	80	70	135	135	175	180	200
Oilseeds	0	0	10	65	160	15	5
Consumer durables	15	15	20	40	45	35	30
Of which:							
Watches	5	5	5	20	20	15	15
Industrial supplies	1 460	1 555	1 875	3 380	4 125	4 250	3 570
Of which:							
Natural textile fibers	95	125	215	450	520	260	190
Synthetic fibres	15	15	25	35	95	95	115
Synthetic textile fabrics	45	40	40	110	170	85	125
Paper and paperboard	15	10	20	35	100	80	45
Rubber	80	60	70	170	165	155	155
Petroleum and products	NA	NA	NA	NA	75	105	45
Fertilizers, manufactured	140	135	145	210	220	405	230
Plastic materials	30	20	35	50	125	70	90
Metalliferous ores	NA	NA	NA	NA	110	125	125
Iron and steel	405	465	510	930	1 210	1 550	1 445
Nonferrous metals	210	150	235	410	415	450	260
Metal products	NA	NA	NA	NA	85	125	90
Capital goods	375	420	445	725	1 650	2 210	1 840
Of which:							
Machinery	195	215	210	310	770	1 265	1 300
Transport equipment	160	185	215	390	835	890	470
Precision instruments	15	10	15	15	40	60	60

The sudden increase in imports for the 1972-1974 period can be observed in all commodity groups with industrial supplies more than doubling over the three year period. The importation of capital goods tripled during the same period, while the importation of machinery alone more than quadrupled between 1973 and 1975.

Of importance in this context, both economically and politically, are the figures for the imports of foodstuffs. A series of years of favorable harvests had given the PRC an opportunity to cut back on its imports of grain, and import only approximately 3 million tons in 1971. The poor agricultural performance which followed in 1972 and 1973 forced the country to import 4.8 million tons the first year and a record 7.7 million tons during the next. These purchases (which were inflated by the additional need to import large quantities of soybeans, oils and similar commodities in order to supplement domestic production) put a tremendous strain on the PRC's economy through their absorption of major shares of available funds earmarked for other imports.⁹ The negative effects of this forced importation of agricultural commodities were reinforced by the fact that the world markets for these commodities were under pressure and that prices were therefore rising rapidly.

A non-negligible share of the PRC's trade volume for the 1972-1975 period was accounted for by the importation of capital goods ranging from precision instruments to complete plants; the major share being accounted for by transport equipment and assorted machinery. The period was characterized above all by the PRC's massive imports of complete so-called "turn-key" plants. The designated objective of this "program" was to enable the development of certain crucial industrial sectors and the acquisition of a non-negligible portion of advanced technology in an "embodied" form.

Table 4 PRC Purchases of Complete Plants: contracts between 1972-1975¹⁰
(million US \$)

Type of plant	By type of plant	
	Number of units	Estimated costs
Iron and steel plants	-	635
Rolling mills	5	
Iron works	1	
Power-generating plants		303
Complete stations	3	
Turbines and generators	46	
Petroleum exploration and extraction plants		127
Offshore drilling platforms	4	
Oil rigs	2	
Survey and supply vessels	33	
Petrochemical and synthetic fibre plants		900
Intermediate products	33	
Synthetic fibre	11	
Chemical fertilizer plants		534
Ammonia	17	
Urea	15	
Other plants		133
TOTAL		2 632

Table 4 (cont.)

By country of origin		
Country		Share cost (%)
Japan	1 190	45
France	557	21
West Germany	405	15
United States	208	8
Italy	103	4
Netherlands	90	4
USSR	25	1
United Kingdom	25	1
Denmark	20	1
Belgium	5	Negligible
Sweden	4	Negligible
TOTAL	2 632	100

In Table 4, contracts for complete plants cover acquisitions for a wide spectrum of industrial sectors, ranging from iron and steel plants, power generating plants, petro-chemical and synthetic fibre plants to chemical fertilizer plants. Of importance, and quantitatively in a clear majority, were the petro-chemical and synthetic fibre plants (44 units) and the chemical fertilizer plants crucial to the satisfactory function of the PRC's agriculture, with a total of 32 units, together accounting for approximately US \$ 1.5 billion. Another significant category is that of oil exploration and exploitation equipment where contracts for material and machinery worth US \$ 127 million were signed. Table 5 indicates the progression in terms of value of the importation of complete plants for the period.

Table 5 Purchases of complete industrial plants: 1972-1976¹¹
(million US \$) (Progression)

1972	119.1
1973	1 487.1
1974	1 039.0
1975	374.1
1976	198.0

It was indicated at the time in statements by members of the PRC leadership that the increased volume of imports was to be paid for by increased exports, the idea of a deficit in the balance of trade being officially out of the question. The value of exports rose from US \$ 2 415 million in 1972 to US \$ 3 085

million in 1973, and to US \$ 4 960 million in 1974. Markets in the international system were expanding and the PRC took advantage of a rising demand for its products, boosting its prices to international levels. Feeding into this drive for increased earnings from exports, the Arab oil embargo created a new market for the PRC's only recently available supplies of crude oil. As is shown in Table 2, the PRC enjoyed a rather comfortable surplus in its trade in 1971 and 1972. The deficit which appeared in 1973, however, accelerated to alarming proportions in 1974. The total deficit of US \$ 760 million was the highest in the PRC's history and, as the breakdown of the direction of trade shows, it was entirely due to the deficit incurred in trade with non-Communist countries since trade with the Communist countries in fact resulted in a comfortable surplus.¹²

The PRC's foreign trade strategy of "imports-paid-for-by-exports" started to come apart in 1974. A series of factors combined to initiate the development and at a subsequent stage, more or less reinforced each other. It is fairly probable that the PRC leadership, although it did expect a trade deficit of some magnitude, did not anticipate the record imbalance of US \$ 1.2 billion in trade with the non-Communist countries that year.¹³ The principal factors behind this development can be listed as follows: (a) the large deliveries of capital goods, (b) inflation in the industrialized countries which substantially affected prices, (c) the unforeseen forced increases in the imports of agricultural commodities. These factors combined to raise the PRC's import costs to very high levels while inflation and the concurrent slowdown of the industrialized economies simultaneously significantly reduced demand for PRC export commodities.

The situation became critical during the second half of 1974 when increased reimbursements on grain credits from the previous year, on the one hand, and lagging exports on the other, put increasingly severe strains on the balance of payments. As an immediate result, the PRC initiated a reduction in the purchase of complete plants and other major pieces of equipment in order to reduce down payment costs. At the same time, it attempted to reduce the depletion of its foreign exchange reserves by either canceling or postponing deliveries on already signed contracts. Finally, it seems clear that the massive imports of agricultural commodities forced upon the country by the failure, once again, of its agricultural sector were directly instrumental in the unraveling of the PRC's "export-for-imports" foreign trade strategy. These imports alone totalled approximately US \$ 2 billion for 1974. The PRC had con-

tracted for another 10 million tons that year, 7 million of which were actually delivered. Although down from 7.7 million tons in 1973, higher prices and increased freight rates nevertheless pushed the cost up to US \$ 1.2 billion, a jump of approximately 40%.¹⁴

III.1.1 Financing the import-oriented foreign trade

In terms of implemented policy the approach of importing foreign equipment and technology in order to by-pass and overcome some of the obstacles to the growth in key sectors of the domestic economy, rapidly highlighted the problems of how to finance the imports. The PRC leadership had the following mean at its disposal in its attempt to solve the equation: (a) the utilization of funds which had become available by the marked decline in the PRC's military expenditures; (b) revenues from increased exports; (c) revenues from the increased output of the PRC's oil production; (d) the politically sensitive possibility of the use of various modes of short- or medium-term financing; i.e. the use of credit.¹⁵

(a) - Obviously, military expenditures traditionally used substantial portions of the PRC's economic resources. A decrease in this spending evidently liberated funds which could then be used for different purposes. Regarding this development, it has been pointed out that:¹⁶

"Since 1971, military procurement has fallen substantially. This drop has extended through 1974 and apparently is continuing in the first quarter of 1975. Production and procurement of military hardware in 1972-1974 has been about 25% lower than during the peak period of 1970-71. (.....) The broad scope and long duration of the decline suggests that it is not simply a consequence of a coincidental cutback in several weapon programs; rather, it is the result of some general cause or causes".

The link between the rise and fall of Mao's heir apparant, PLA marshall Lin Biao, the political set-back this represented for the PLA and the subsequent cutbacks in military expenditure should not be overlooked. Part of the funds which became available as a result of these developments, was earmarked for economic development and use in the foreign economic sector.¹⁷

(b) - As was illustrated in Table 2, exports did show a significant growth during the period under consideration, nearly tripling between 1971 and 1975. This growth can in part be attributed to the change in the commodity composition of

the PRC's exports. This change included a steady increase in exports of industrial goods which, when expressed as a percentage of total exports, accounted for somewhat over 40%. Within this category, exports mainly refer to light industrial products with textile goods and apparel - although declining somewhat - representing the largest single category.¹⁸

(c) - The most remarkable trend in the development of the export sector was the increase in exports of natural resources, particularly oil exports after 1973. Crude oil represented approximately 50% of the PRC's raw material exports and, while petroleum products only account for a minor share of the total export volume, the share represented by crude oil rose from 0.5% in 1973 to approximately 10% in late 1976.

(d) - An additional source of resources for the financing of imports (a rather special source with respect to its political sensitiveness) was the utilization of so-called "deferred payments". As has been outlined previously, the PRC's foreign trade grew very rapidly during the opening years of the decade. In the course of that development, the PRC, however, accumulated a substantial trade deficit, its foreign exchange reserves becoming severely depleted. In addition, the PRC's growing interaction with the international system started to result in a series of initially small, but nevertheless significant, changes in its domestic economic system. The country's greater permeability to outside influences, one of the results of its expanded foreign economic relations, meant that, for the first time, the PRC had to deal with the significantly wider fluctuations inherent in the mechanisms which rule market economies. Compounding this, the PRC's trade with other Communist countries had for some time been moving away from the former fixed price system to one of fluctuating prices.¹⁹ The net result of these developments was that of compounding the already existing difficulties it had in maintaining its principle of an annual balance between imports and exports, one of the cornerstones of hitherto PRC foreign trade policy. And while a majority of the PRC's spokesmen in trade matters in formal policy statements proudly professed the country's freedom from debts and its refusal to make use of credit, this professed rejection of foreign credit lost most of its substance during the 1973-1975 period. The PRC leadership modified its stance on this matter and parallel to advocating a model of a two-three year balance as opposed to an annual balance, it increasingly came around to the acceptance of the idea of making use of short- and medium-term credit. In fact, as early as the Summer of 1972, the PRC government financed the acqui-

sition of an industrial plant through the mediation of the Japanese Export-Import Bank.

It should be remembered that PRC officials, in statements regarding foreign economic arrangements, continued to maintain that the PRC did not have any debts and that financing such as in the 1972 example, while it admittedly did occur, merely represented "standard international trading practices". The extent of the discrepancy between the formal statements and actual implemented policy is worth noting and is well illustrated by the detailed breakdown provided in the notes.²⁰ This tendency toward the acceptance of medium-term credit became increasingly stronger, reaching the point where no large-scale contracts for imports were made without the extension of "deferred payment" terms.

In summary, when in the early 1970's a series of decisions aimed at re-vitalizing the development of the PRC's economy were made, including decisions with respect to an expansion of the PRC's foreign economic relations, trade was characterized by low volume and had been stagnant for the best part of a decade.²¹ Crucial sectors of the industry, such as the heavy industries and the chemical and petro-chemical industries, were assigned top priority within the framework of a strategy which was aimed at using the gains of increased trade and the importation of foreign technical products as a means to overcome both domestic technological backwardness and inferior economic development. At the outset, revenues from increased exports were viewed as the principal means of financing the policy but the poor performance of agriculture, plus other factors, combined to leave their negative mark on the country's balance of payments. This in turn put pressure on the proponents of the approach either to abandon it, or to find alternative means of implementing it.

III.2 Implemented Policies: 1976-1981 - The "Great Leap Outward" and Readjustment

In 1976, a year marked by the political turmoil brought about by the death of Zhou Enlai and Mao Zedong, the purge of Deng Xiaoping and the demise of the "Gang of Four", the PRC experienced a record US \$ 1.2 billion trade surplus. And while, during the opening months of the year, important deliveries of industrial supplies and equipment for complete plants were made, imports virtually collapsed during the second half of the year. Imports closed at US \$ 6.0 billion compared to US \$ 7.4 billion in 1975. This development was, to a large extent,

due to disagreement within the leadership on issues like the modalities of the next Five Year Plan and the still unresolved controversy concerning the position and extent of foreign economic relations.

While the impact of political developments was substantial in the case of imports, it was remarkably absent where exports were concerned. The PRC increased exports of textiles, clothing and light manufactured products. However, exports of foodstuffs and crude oil dropped. The drop in crude oil exports was not the result of any domestic "debate" concerning the exploitation of raw materials or the danger of "selling out the country", but rather of a reluctance on the part of the Japanese to buy more of the hard-to-refine Chinese crude.²²

Thus, although political developments account for a significant share in the explanation of the decline in PRC imports, other factors too had their impact. A combination of such factors as lower volumes and lower prices accounted for the decline of approximately US \$ 1.4 billion in imports between 1975 and 1976. Good harvests in 1975 enabled the PRC to reduce its grain purchase to 1.9 million tons in 1976, the lowest figure in nearly 15 years. The decline in imports of fertilizer, iron and steel, for example, was due to significant decreases in prices, and not to decreases in volume.²³

Imports of capital goods declined from US \$ 2.2 billion in 1975 to US \$ 1.8 billion in 1976 almost entirely because of a decrease in the import of transport equipment. While imports of trucks and other vehicles fell by some 50%, the overall decline is due to the complete halt in the purchases of ships and other vessels during the Spring of 1976. Expenditures for ships fell from approximately US \$ 400 million in 1975 to less than US \$ 50 million in 1976.²⁴

In 1977, with the return of relative stability after the political and economic turmoil of 1976, the PRC's foreign economic relations and in particular its trade started to expand again. The increased interest for contacts with the outside world resulted in an "outward turn" and the sending abroad that year of large numbers of trade and technical missions. These PRC representatives visited virtually all the member countries of the OECD group with the stated objective of investigating adequate commodities for import and potential suppliers. In a parallel development a large number of foreign business representatives were officially invited to the PRC to inform the Chinese on products, services and possible modalities of trade.

Although two-way trade grew by approximately 13% to US \$ 15 billion between 1976 and 1977, it soon became evident that 1977 was a year of preparation, rather than a year of significantly increased trading.²⁵ Much of the growth came during the second half of the year and led to a positive balance of trade with a surplus of approximately US \$ 0.9 billion. Imports showed a proportionally sizable increase to US \$ 7.1 billion, a large share of which was accounted for by important agricultural purchases. Of total purchases of agricultural commodities, grain accounted for US \$ 745 million representing some 6.9 million tons, a volume which should be compared with the 1.9 million tons the preceding year, once again reflecting the PRC's stagnant grain production. A hike also occurred where the importation of industrial commodities was concerned. These accounted for approximately 60% of the total, by far the largest component on the import side. The PRC increased its iron and steel importation by US \$ 200 million and also raised the acquisitions of non-ferrous metals. On the other hand, deliveries of machinery and equipment were on their way down and purchases of capital goods in general declined by US \$ 635 million, essentially reflecting the overall decline in new contracts for complete plants.

Exports, which had leveled at the US \$ 7.3 billion mark for two years experienced a growth of approximately US \$ 700 million, rising to US \$ 8.0 billion, and probably reflecting the return to more or less normal performance of domestic production and transportation. The increase represents growth in all major categories, textiles and clothing as well as crude oil which represented 10% of the total.²⁶

An important aspect of the development of the PRC's foreign economic relations in 1976 and 1977 was the country's proportionally healthy financial situation.²⁷ With its second consecutive year of relatively large trade surplus, the PRC was in satisfactory financial condition. The current account stood at an estimated surplus of US \$ 1.5 billion. While larger grain purchases led to increased use of short-term credits, drawings on medium-term credits for complete plants or similar purchases were minimal as deliveries under most of these contracts had been completed. In general terms, the PRC's foreign debt was one of minor proportions, with a ratio of debt-service to hard-currency exports of only 8% for 1977. Table 6 indicates that the country's outstanding debt in 1977 was estimated at US \$ 1.3 billion.²⁸

Table 6 The PRC's Foreign Debt Position: 1970-1977
(million US \$)

	1970	1971	1972	1973	1974	1975	1976	1977
Short-term credits								
Drawn	275	240	240	530	840	920	225	470
Repaid	325	305	175	230	655	830	935	230
Net	- 50	- 65	65	300	185	90	-710	240
Interest	30	30	15	20	50	65	95	25
Outstanding	325	260	325	625	810	900	190	430
Medium-term credits								
Drawn	0	0	0	0	215	560	285	60
Repaid	0	0	0	0	0	0	20	215
Net	0	0	0	0	215	560	265	-155
Interest	0	0	0	0	0	0	5	65
Outstanding	0	0	0	0	215	775	1 040	885
Totals								
Drawn	275	240	240	530	1 055	1 480	510	530
Repaid	325	305	175	230	655	830	955	445
Net	- 50	- 65	65	300	400	650	-445	85
Interest	30	30	15	20	50	65	100	90
Outstanding	325	260	325	625	1 025	1 675	1 230	1 315

(see supra note 28)

The trend initiated in 1977, blossomed in 1978 into a development which has been called the "Great Leap Forward". The PRC's interaction with the world market expanded strongly and the volume of trade ballooned. Overall trade grew by 45% from about US \$ 14.5 billion in 1977 to approximately US \$ 21 billion in 1978.²⁹ Exports increased by 34% to US \$ 10 billion while imports surged, increasing by 58% to approximately US \$ 11.1 billion.³⁰

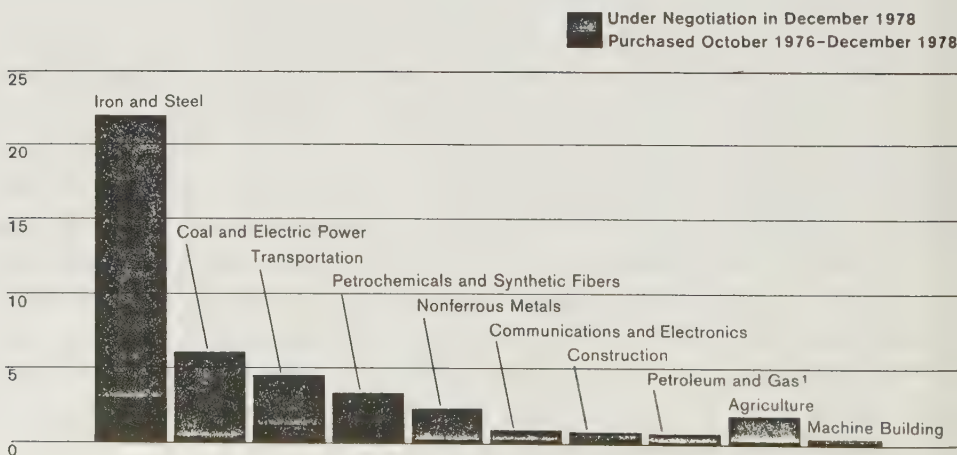
The PRC initiated negotiations with a large number of foreign corporations and showed interest in importing what amounted to tens of billions of US dollars worth of capital goods. In particular, during the second half of 1978, reports flourished about increasingly important contracts involving alleged sales of hitherto unheard-of magnitudes concerning hardware, services and technological know-how. Many of these reports, however, were erroneous. They often failed to distinguish among firm purchase orders, letters of intent, agreements and simple negotiations.³¹ Obviously, pinpointing the exact extent of the PRC's purchases of capital goods was not facilitated by this inaccuracy. Nevertheless, actual PRC import contracts for engineering products for 1978 have been valued at approximately US \$ 7 billion.³²

Table 7 The PRC's Foreign Trade: 1977-1981³³
(billion US \$)

	1977	Growth (%)	1978	Growth (%)	1979	Growth (%)	1980	Growth (%)	(estimate) 1981	Growth (%)
Total	14.49	9.2	21.13	45.8	29.17	38.1	37.53	28.7	42.27	12.6
Exports	7.43	2.3	9.98	34.3	13.59	36.2	18.13	33.4	22.36	23.3
Imports	7.06	17.5	11.15	57.9	15.58	39.7	19.40	24.5	19.91	2.7
Balance	0.37		-1.17		-1.99		-1.27		-2.44	

Figure 1 shows that a large share of the acquisitions of plants and related equipment was accounted for by purchases intended for the metallurgical and petro-chemical sectors. Contracts in 1978 for iron and steel plants totaled approximately US \$ 3 billion and contracts for petro-chemical plants slightly more. Figure 1 further shows that plant and related technology purchase under negotiation or under discussion that year roughly sub-divided as follows: iron and steel, US \$ 22 billion; coal and electric power plants, US \$ 6 billion; transportation equipment, US \$ 4 billion; agricultural machinery and equipment, US \$ 1.2 billion. The heading Petroleum and Gas in the figure does not take into account figures related to oil exploration and exploitation technology which at that time also was under negotiation.³⁴

Figure 1 Estimated Hard Currency Cost of Plants, Related Technology and other Equipment, under negotiation or purchased: 1976-1978³⁵
(billion US \$)



During 1978 the PRC also signed a series of important general trade agreements with a number of the major non-Communist industrialized countries establishing a framework for future economic relations. As part of this development, the PRC signed agreements with Japan and the countries of the European Economic Community (EEC), as well as separate bi-lateral agreements with several of those countries. The Sino-Japanese agreement was intended to cover the 1978-1985 period foreseeing a trade volume of US \$ 20 billion, US \$ 10 billion each way.³⁶ The Sino-EEC agreement covered a five-year period and granted the PRC a "most favored nation" status. Supplementary agreements were signed with France, the United Kingdom and West Germany.³⁷

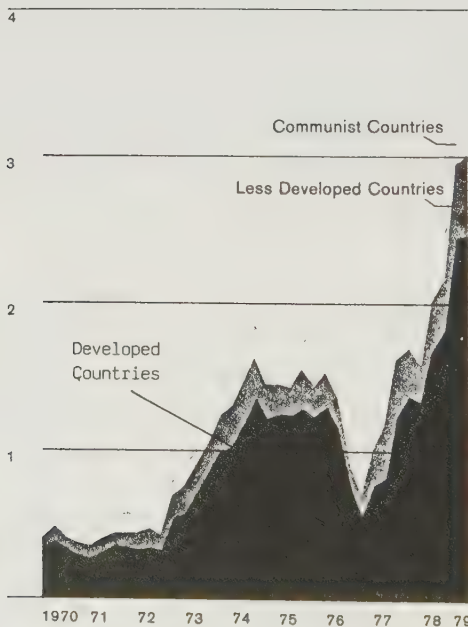
The surge in imports, particularly late in the year, resulted in a substantial deficit by the end of 1978. The speed and the dimension of the "shopping spree" are illustrated by the fact that while the PRC had a US \$ 300 million surplus in the first quarter of 1978, it incurred a US \$ 540 million deficit during the fourth quarter. The extent of this "shopping spree", which as we have seen, covered an unprecedented array of commodities and services, and the resulting deficit in the balance of trade, caused concern among the PRC leadership.³⁸ By late 1978 indications were that the development was getting out of hand and that a "re-assessment" was necessary. At a first stage, this implied a general slowing down in order to sort out the country's priorities in its import program and the domestic applications as well as an assessing of the country's ability to absorb and pay for the proposed acquisitions. In addition to having to cover the end-of-the-year deficit indicated above, the PRC was bound to approximately US \$ 600 million in down-payments for plants ordered during the second half of 1978.³⁹

The result of this "re-assessment" was dramatic. In February 1979, the PRC government - without notice - called for the suspension of approximately US \$ 2.5 billion worth of contracts and agreements with Japan. In a parallel move, it slowed down or suspended other negotiations that had been initiated during the previous half year. It also put a temporary stop to all further signing of contracts.⁴⁰

By the middle of 1979, however, trade began to pick up again. A revision and re-adjustment of the overall plan was announced and contracts were being re-negotiated. Apparently a drive to secure international lines of credit was so successful that it assured the PRC of general long-term commitments in excess

of US \$ 20 billion.⁴¹ With the country's financial position on somewhat more solid ground, the PRC resumed its acquisition of foreign technology. It had, however, made clear that its purchases of machinery, equipment of all sorts, complete plants and assorted technology were definitely to be more controlled in the future than during 1978. While the PRC leadership, at the National People's Congress (NPC) sessions in June, strongly re-affirmed the decisions which had been taken during the previous months, a new cautiousness was evident, however, and it was indicated that priority would be given to the purchase of less expensive, less capital intensive technology. Figure 2 indicates that in spite of the modified approach which had been announced and although a number of the more grandiose projects were either to be abandoned or scaled-down (the Bao Shan steel mill project near Shanghai involving large quantities of Japanese technology was one of the most noticeable "victims"), imports continued to grow substantially after 1978.

Figure 2 The PRC's Imports - Source-wise: 1970-1979⁴²
(billion US \$)



As far as the PRC's foreign economic relations were concerned, 1979 was essentially a year of re-assessment. The considerable trade deficit of 1978 had severely strained the country's hard-currency reserves and necessitated a re-evaluation of its position. As we have seen, one of the results of this re-adjustment was the drastic scaling-down of import orders during the first quarter of 1979. The real importance of the developments of 1979, however, lay in the fact that they tended to substantiate a number of observations: the PRC had initiated a process of altering its basic approach to foreign economic relations and was attempting to operate what appeared to be a broadening of the scope of those relations. These moves were supplemented with a more careful specification of some of the objectives to be achieved, at the national and sub-levels, through these extended relations.

In 1980, growth in the PRC's foreign trade surpassed that of previous years. Exports as well as imports grew by US \$ 6 billion and US \$ 5 billion respectively, and the deficit accumulated in 1979 was transformed into a positive balance of trade that year. Some indications lead to attribute this growth in trade to the PRC's decision of 1978, and more substantially of 1979, to allow a decentralization of foreign trade decision-making. By allowing enterprises to engage directly in trade with foreign partners, Beijing not only provided these enterprises with the incentive to market their products outside the domestic market, but also gave a free hand to a substantial demand for foreign consumer items and capital goods. These measures, however, while stimulating foreign economic interaction, rapidly created a series of other problems which were interpreted as being negative or counter-productive by the leadership.

It became evident fairly rapidly that the PRC's policies of economic readjustment had less impact on the overall level of trade than on commodity composition and trade direction. Purchases of industrial commodities and complete plants were down, while imports of less capital intensive engineering products, items related to light industrial production, consumer goods and agricultural commodities, grew. As is shown in Table 8, a change in direction of trade is clear: West Germany and France lose shares, Japan more or less breaks even and the United States, Canada and Hong Kong are the beneficiaries over the 1980-1981 period.⁴³ The countries of the Communist bloc appear to have fared the worst, their share falling to 10% of the total trade volume.⁴⁴

Table 8

The Direction of PRC Trade - Main Partners: 1980-1981
(million US \$)

Region	Exports		Imports		Balance		Two-way	
	1980	1981	Growth (%)	1980	1981	Growth (%)	1980	1981
Japan (Jan-Dec)	5 078.34	5 097.59	0.4	4 323.37	5 291.00	22.4	754.97	-193.41
Hong Kong (Jan-Sept)	797.69	1 451.66	82.0	3 092.55	3 943.81	27.5	-2 294.86	-2 492.15
Singapore (Jan-Sept)	215.73	135.90	-37.0	437.86	551.41	25.9	-222.13	-415.51
U.S. (Jan-Dec)	3 748.99	3 598.60	-4.0	1 058.34	1 895.33	79.1	2 690.65	1 703.27
Canada (Jan-Nov)	691.15	755.62	9.3	123.00	168.04	36.6	568.15	587.58
West Germany (Jan-Oct)	961.62	837.99	-12.9	678.58	635.13	-6.4	283.04	202.86
France (Jan-Nov)	269.64	264.94	-1.7	430.94	468.46	8.7	-161.30	-203.52
Italy (Jan-Oct)	183.28	264.45	44.3	343.94	332.03	-3.5	-160.66	-67.58
Australia (Jan-Nov)	581.62	454.00	-21.9	167.33	237.15	41.7	414.29	216.85

(see supra note 43)

In summary, the post-1976 change and the "Great Leap Outward" during 1978, involved much more than a mere increase in trade and in volume of imported goods. The crucial change lay in the fact that the PRC significantly altered its approach to foreign economic relations by a display of unprecedented interest in a range of more specific items, new methods, and a noteworthy flexibility in its dealings. In the course of this development, the PRC expressed particular interest in acquiring technology related to some of the following sectors. The iron and steel industry, where renewed attention was given to the development not only of capability in the industry proper but also to the importance of "upstream" and "downstream"-related capability. Included were facilities such as mines and fabrication plants as well as transportation, where emphasis was placed on the necessity of upgrading an essentially inadequate system. In this manner, between the end of 1976 and the end of 1978, approximately US \$ 1 billion were committed to the importation of foreign equipment for the upgrading of both railroad and water transports. Negotiations were initiated for the development of modern shipyards, and facilities for the production and maintenance of locomotives, trucks and cars. In the energy sector, equipment was acquired and negotiations were initiated with regard to the development of coal and crude oil extraction, the objective being the mechanization of the mines and the upgrading of the petroleum industry. In a more recent development, negotiations have begun for the acquisition of nuclear power plants. In the petrochemical industry, approximately US \$ 3 billion worth of foreign technology has been introduced to develop production capacity for plastics, synthetic fibres and resins. In the machine building industry, purchases have been dominated by machine tools, geared to the development of machining centers, with an emphasis on forges, foundries, press lines and cutting tools. There has been interest in the acquisition of Western communications technology and in the importation of know-how in the field of electronics. In 1978, an integrated circuit plant was purchased from Japan in order to boost capacity in electronic components technologies. Finally the PRC has, especially since 1979, shown a particular interest in the purchase of a relatively wide array of measuring and controlling instruments essential to the monitoring and analysis of production processes. Table 9 provides a breakdown of the development in these categories since 1979. While a number of categories register a drop, growth in categories 72 and 86 is noteworthy.

Table 9 PRC Imports by Commodity - SITC Categories 6, 7, 8: 1979-1981
(million US \$)

	1979	1980				1981				Annual		
	IV	I	II	III	IV	I	II	III	IV	1979	1980	1981
Totals (all commodities)										14 488.4	19 377.2	18 620.
66 Mineral Manufactures	40.1	25.4	30.7	40.8	52.5	35.0	42.8	32.9	25.1	148.7	149.4	135.7
67 Iron & Steel	614.1	372.2	553.7	567.2	757.5	461.6	440.7	366.8	413.5	3 458.1	2 250.6	1 682.6
68 Nonferrous Metals	82.5	66.9	109.3	93.6	115.3	97.1	77.2	64.2	76.4	339.9	385.1	314.9
69 Metal Manufactures, NES	75.8	69.2	107.8	81.1	113.3	91.9	88.9	69.7	49.5	222.1	371.4	300.1
7 MACHINERY & EQUIPMENT	1 248.2	1 308.3	1 120.1	1 277.9	1 701.1	1 577.2	1 287.1	1 175.8	1 071.2	3 842.9	5 407.4	5 111.4
71 Non-electric Machinery	575.7	724.6	584.3	647.5	856.0	854.0	729.8	662.1	532.7	1 990.2	2 812.4	2 778.7
72 Electrical Machinery	201.7	169.1	215.3	292.6	393.5	405.4	309.6	307.6	310.3	541.8	1 070.5	1 332.8
73 Transport Equipment	470.8	414.6	320.5	337.8	451.6	317.9	247.7	206.1	228.2	1 310.9	1 524.4	999.8
8 MISC. MANUF. ARTICLES	89.8	105.4	101.1	119.5	162.8	163.9	134.0	153.6	186.1	301.2	488.8	637.6
86 Precision Instruments	57.2	48.7	64.1	78.3	106.3	114.9	95.8	89.9	106.8	214.4	297.4	407.4

(see supra note 45)

With the above development under way, the PRC also initiated new and hitherto unknown relationships with foreign business interests. The Canton Fair for example, once the only way of gaining access to the labyrinth of PRC trade institutions, was to a considerable extent by-passed as the PRC brought a variety of other trade-related organizations into play. Direct contact between foreign interests and ministries increased. The PRC allowed foreign companies to establish offices in the country and indicated the possibility of opening offices for its own trading companies in key cities abroad. An even greater change occurred when the PRC initiated discussions regarding possible forms of cooperative production arrangements with foreign participants.

As early as the end of 1978, it had become evident that the PRC was especially interested in compensation trade and export processing agreements whereby foreign interests would be compensated for their input - technology, advice and capital - by means of a share of the production output.⁴⁶ This new approach and the flexibility on the part of the PRC initially related only to relatively small-sized and export-oriented agreements. By 1979, however, it had become clear that the leadership also considered this option suitable for many of their larger development projects. Underscoring the extent of the change, Beijing started expressing interest in the establishment of joint equity ventures. It was indicated that after an initial phase with the participation of mainly overseas Chinese, this arrangement was also intended for use in cooperations with major, multinational corporations. The shift in approach to foreign economic relations that had occurred in terms of the acquisition of hardware, was accompanied by the recognition that the PRC's needs were not merely confined to the importation of engineering products, but demanded the acquisition of technology and technical know-how in a significantly broader sense. Recognizing the ramifications of the developmental problems facing the country, the leadership demonstrated a novel interest in having foreign companies send personnel to the PRC to assist with technical and managerial advice, and in sending sizeable numbers of students, scientists and technicians abroad for training.⁴⁷

NOTES TO CHAPTER III

- 1) JETRO (1979); "China: A Business Guide", p 69.
- 2) NFAC (1975); "PRC: International Trade Handbook", A(ER)75-73, p 1.
- 3) Ibid. p 1.
- 4) NFAC (1977); "China: International Trade 1976-1977", (ER)77-10674, p 1.
- 5) NFAC (1977); "China: Real Trends in Trade with Non-Communist Countries since 1970", (ER)77-10477, p 1.
- 6) JEC (1978); Batsavage and Davie p 711. For Table 2 see: NFAC (1977); "China International Trade 1976-1977", (ER)77-10674, p 9.
- 7) For the 1973 figures see: JEC (1978); Batsavage and Davie p 712. Regarding the variations of the total amount of plant contracts consult: Heyman Jr (1975) p 701-704 and JETRO (1979) p 133, as well as JEC (1982); Simon p 520.
- 8) JEC (1978); Batsavage and Davie p 738.
- 9) Ibid. p 712.
- 10) JEC (1975); Heyman Jr p 701.
- 11) Figure compiled from JETRO (1979) pp 97-98.
- 12) See JETRO (1979) pp 83-86 and sources listed in supra note 6.
- 13) JEC (1978); Batsavage and Davie p 713.
- 14) The same applied for soybeans, sugar and cotton for the same period. Ibid. p 713. Record agricultural imports and the high rate of delivery of machinery and equipment accounted for almost all of the approximately 40% rise in imports in 1974. Imports of capital goods, complete plants, machinery, transport equipment, etc., reached US \$ 1.6 billion in 1974, more than twice the 1973 total. Foreign engineering products included aircraft, ships, trucks, dredgers, mining and oil drilling equipment and construction equipment.
- 15) Eckstein (1977) p 239.
- 16) For a detailed discussion of the changes in this field as well as the effects of the Lin Biao affair see: JEC (1975); Jammes p 463.
- 17) A decline in the PLA's status is clearly linked to the funds allocated to it. This is borne out by present developments in the PRC in that respect. Ibid. p 463. Also see: NFAC (1980); "Chinese Defense Spending 1965-1979"; (SR)10091, pp iii-2.
- 18) See JETRO (1979) p 95.
- 19) Ibid. p 103.
- 20) NFAC (1976); "PRC: International Trade Handbook"; (ER)10610, pp 21-22. Although the note is long, the financing terms and modalities listed under heading "comments", make for interesting reading.

(Note 20 continued)

China: Contracts for Whole Plant Imports

Nation/Firm	Type	Value (Million US \$)	Contract signed	Comple- tion	Comments
1973 Contracts		1 259			
Japan		461			
Toyo Engineering	Ethylene and butadiene	50	Feb 73	1978	Japan Ex-Im/Commer- cial bank financing
Mitsubishi	Ethylene and poval	34	Feb 73	N.A.	-"-
Asahi Chemical	Acrylonitrile monomer	30	Mar 73	N.A.	-"-
Kuraray	Vinyl acetate and poval	26	Mar 73	1976	-"-
Toyo Engineering and Mitsui Toatsu	Urea and ammonia	42	Apr 73	N.A.	-"-
Toray and Mitsui Ship-building	Polyester chips	50	May 73	1976	-"-
Sumitomo	Benzene, toluene and aylen	5	May 73	N.A.	Cash deal
Mitsubishi	Polyethylene, low pressure	22	Jul 73	1975	Japan Ex-Im/Commer- cial bank financing
Sumitomo	Polyethylene, high pressure	47	Aug 73	1976	-"-
Hitachi Ltd	Two thermal electric power plants	72	Sept 73	1975	-"-
Toyo Engineering and Mitsui Toatsu	Urea and ammonia	43	Sep 73	N.A.	-"-
Mitsui Petrochemical and Mitsui Ship- building	Polypropylene	25	Oct 73	1976	-"-
NISSO Petrochemical	Ethylene glycol	15	Dec 73	1977	-"-
France		400			
Alsthom	Hydroelectric turbines (2)	10	Feb 73	N.A.	
Speichem	Vinyl acetate and methanol	90	May 73	1976	Consortium involving firms in France, West Germany, and the UK
Technip and Speichem	Petrochemical complex	300	Sep 73	N.A.	French-led consor- tium probably in- volving other firms in Western Europe
United States		205			
M.W. Kellogg	Ammonia plants (3)	75	Mar 73	1976	Probable feedstock plants for the Dutch urea plants
M.W. Kellogg	Ammonia plants (5)	130	Nov 73	1976-77	Probably progress payments, will pro- vide feedstock for five Dutch urea plants
Netherlands		89			
Kellogg Continental	Urea plants (3)	34	Feb 73	1976	Subsidiary of M.W. Kellogg
Kellogg Continental	Urea plants (5)	55	Sep 73	1977	-"-
West Germany		4			
Friedrich Uhde and Hoechst	Acetaldehyde	4	Jul 73	N.A.	

(Note 20 continued)

United Kingdom		8			
Technicolor Ltd	Motion picture processing plant	8	Jul 73	N.A.	Cash deal
Italy		79			
G.I.E.	Electric thermal power plants (2)	79	Nov 73	N.A.	Five-year financing
Denmark		13			
Haldor Topsoe	Ammonia catalyst	13	Dec 73	N.A.	
1974 Contracts		831			
Japan		348			
Teijin	Polyester spinning	16	Jan 74	N.A.	Japan Ex-Im/Commercial bank financing
Toho Titanium	Polypropylene catalyst	5	Jan 74	N.A.	Catalyst for Mitsui polypropylene plant
Kuraray	Polyvinyl alcohol	19	Feb 74	1976	Japan Ex-Im/Commercial bank financing
NISSO Petrochemical	Synthetic fiber	14	Mar 74	1976	
Nippon Steel & Hitachi	Hot strip rolling mill and silicon steel plate	229	Jun 74	1977	Demang supplying other part of the complex
Nippon Steel	Ancillary equipment for steel mill	65	Oct 74	1977	Equipment for the hot strip mill
West Germany		296			
Uhde	Vinyl chloride monomer	19	Jan 74	1976	
Demag	Cold rolling mill	200	Mar 74	1977	Consortium of European firms led by Demag Progress payment
Uhde	Polyethylene	15	Mar 74	1976	
Demag	Continuous casting mill	57	Aug 74	1977	Progress payment. Part of steel complex purchased from Japan and Germany
Brown Boveri	Electrical substations	5	Aug 74	1977	
France		171			
Heurtey	Ammonia and urea complex (2)	120	Feb 74	1977	Five-year credit financing
Electromechanique	Thermal electric powerplant	41	Apr 74	1976	
Rhone Poulenc	Nylon spinning	10	Aug 74	1977	Progress payment
Italy		16			
SNAM Progetti	Polypropylene	16	Jan 74	N.A.	Progress payment
1975 Contracts		371			
Japan		59			
Nippon-Seiko	Spherical bearings	3	Apr 75	1976	Progress payment
Koyo Seiko	Cylindrical bearings	8	Apr 75	1976	-"-

(Note 20 continued)

Ibigawa	Laminated board	1	Jul 75	N.A.	
Ataka	Air separation	11	Nov 75	1977	Progress payment 35 000 m ³ /hr capacity
Japan Gasoline	Aromatics complex	36	Dec 75	N.A.	Japan Gasoline with Itoh & Co. Sumitomo Shoji, Sangyo Boeki. Contract signed before agreement was reached in January 76 on Japan Ex-Im Bank financing
West Germany		76			
Linde	Benzene	20	Jul 75	N.A.	
Krupp	Dimethylterephthalate	50	Dec 75	N.A.	Progress payment 90 000 t/yr capacity
Siemens	Turbine	6	Dec 75	N.A.	
United Kingdom		200			
Rolls Royce	jet engine plant	200	Dec 75	1980	50 jet engines plus manufacturing facility and testing equipment
Italy		36			
Mechanche Moderne	Detergent	1	Sep 75	N.A.	Progress payment
Eurotechnica	Detergent alkalation	35	Oct 75	N.A.	Deferred payment

- 21) For a detailed analysis of the subject consult: David L; Benny and Frederic M Surls, the China Business Review (March/April 1977), "China's Foreign Financial Liabilities".
- 22) NFAC (1977); "China: International Trade 1976-1977" (ER)77-10674, p 1. Chinese Crude contains a high level of wax, which makes it hard/expensive to refine.
- 23) Ibid. pp 3-4.
- 24) Ibid. p 4.
- 25) The nature and the extent of the development in 1977 became increasingly clear with the growing interaction at the personal level. For the progression consult the Far Eastern Economic Review and the China Business Review for 1977, their coverage is excellent. The origin of the term "the Great Leap Outward" is hard to trace. It does, however convey remarkably well the nature of the 1978 development.
- 26) NFAC (1978); "China: International Trade 1977-1978" (ER)78-10721, p 3.
- 27) Supra note 21.
- 28) Supra note 26 p 5 and p 23.
- 29) JETRO (1981); "China Newsletter", No. 37, March/April, p 23.
- 30) Ibid. p 23. Also see: NFAC (1979); "China International Trade" Quarterly Review, First Quarter 1979 (ER)CIT 79-001, p 1.
- 31) Barnett (1980) p 133.

- 32) NFAC (1979); "China: Post-Mao Search for Civilian Industrial Technology", (ER)79-10020 U, pp 4-6, estimates contracts at approximately US \$ 7 billion.
- 33) JETRO (1981); "China Newsletter", No. 37, March/April, p 23.
- 34) NFAC (1979); "China: Post-Mao Search for Civilian Industrial Technology", (ER)70-10020 U, p iv. The purchase of petroleum related equipment and technology increased substantially in 1980 and 1981. Cf. Geraedts (1983).
- 35) Supra note 34 p iv.
- 36) JETRO (1978); "China Newsletter", No. 18, June, pp 1-16.
- 37) China Business Review, No 2, March April, 1979, p 70.
- 38) For an analysis of the PRC's imports in 1978 see Barnett (1980) pp 134-138.
- 39) NFAC (1979); "China: International Trade", Quarterly Review, First Quarter, (ER)CIT 79-001, p 1.
- 40) Ibid. p 1.
- 41) Ibid. p 1. Also see JETRO (1979); "China Newsletter", No. 22, July, pp 5-6. The following is a detailed breakdown of available lines of credit:

GOVERNMENTAL

Country	Economic cooperation agreement	Amount extended	Terms, etc.
France (Dec 1978)	Sino-Fench Long-Term Economic Cooperation Agreement (1979 85) Fr.F. 60 billion (approx. \$ 14 billion) in two-way trade in seven years (until 1985) Imports & exports in 1985 to be Fr.F. 12 billion (approx \$ 2.8 billion)	Fr.F. 30 billion (approx. \$ 7 billion) loan agreement signed May 1979	Consortium of 18 banks including Banque de France. Guaranteed by Compagnie d'Assurance pour Commerce Extérieur (COFACE). 7.25% interest rate for seven years, 7.5% interest rate for over seven years.
UK (Mar 1979)	Sino-British Long-Term Economic Cooperation Agreement (1979-85) \$ 14 billion in two-way trade in seven years	\$ 5 billion loan agreement signed March 1979	Extended up to March 1985. Guaranteed by Exprot-Credit Guarantee Department (ECGD). 1. For contracts worth up to \$ 20 million 7.25% interest rate for 5 years. 2. For contracts worth \$ 20-100 million 7.5% interest rate for 8 years. 3. For contracts worth over \$ 100 million 7.5% interest rate for 10 years.
Italy (Apr 1979)	Sino-Italian Long-Term Economic Cooperation Agreement (10 years)	\$ 1 billion loan agreement signed May 1979	Consortium of four special financial institutions. Istituto Mobiliare Italiano (IMI), Mediobanca, Efibanka, and ICIPU, for extending \$ 250 million in each of four stages.

(Note 41 continued)

			7.5% interest rate. 8.5 year repayment period (1 installment each half year). Guaranteed by Mediocredito Centrale
Japan (Mar 1979)	Japan-China Long-Term Trade Agreement (1978-85) Revised - Extended five years to 1990 - Total expanded to \$ 40-60 billion in two-way trade	¥ 420 billion (approx. \$ 2 billion) loan agreement signed May 1979	Financed by the Export-Import Bank of Japan for resource development. 6.25% interest rate. 10 year repayment period
Australia (Apr 1979)		\$ 45 million	Extended by EFIC
Canada (May 1979)		Approx. \$ 2.3 billion loan agreement signed May 1979	Extended by Export Development Corporation (EDC)
Sweden (May 1979)	Sino-Swedish Trade Agreement - Five year term	\$ 350 million	Unknown
Subtotal:		\$ 17,695 million	

PRIVATE SECTOR

Date	Bank	Amount	Terms, etc.
Jan 1979	Bank of Montreal (Canada)	\$ 5 million	London Inter-Bank Rate (LIBOR)+0.625%
Mar	Arab France Union Bank (UBAF) cofinancing	\$ 500 million	LIBOR+0.5%, 3.5 years
Mar	Midland International Bank (MAIBL) Midland Bank, Toronto Dominion Bank, Standard Chartered Bank, Australia Commercial Bank, etc cofinancing	\$ 175 million	LIBOR+0.5%, 5 years
Mar	Lloyds Bank (UK)	\$ 100 million	LIBOR+0.5%, 5 years
Mar	Midland Bank (UK)	\$ 100 million	"-
Mar	Standard Chartered Bank (UK)	\$ 100 million	"-
Mar	National Westminster Bank (UK)	\$ 100 million	"-
Apr	Candian Imperial Bank of Commerce (CIBC) (Canada)	\$ 100 million	"- estimate
Apr	Barclays Bank (UK)	\$ 100 million	Unknown
Apr	Hessische Landesbank (F R Germany)	\$ 50 million	LIBOR+0.5%, 5 years estimate

Apr	Bank of Chile (Chile)	\$ 10 million	Unknown
May	Bank of Tokyo and others in a 22 private bank consortium for cofinancing (Japan)	\$ 2 million	4.5 years
Jun	First National bank of Chicago (U.S.)	\$ 8 million	Unknown
Jun	Bayerische Vereinsbank (F R Germany)	\$ 100 million	Unknown
	Subtotal	\$ 3 448 million	
	TOTAL	\$ 21 143 million	

42) Supra note 39 p iv.

43) JETRO (1982); "China Newsletter", No. 37, March/April, p 23.

44) NFAC (1981); "China: International Trade", Quarterly Review, Fourth Quarter 1980, (ER)CIT 81-003, p 3.

45) NFAC (1982); "China: International Trade", Quarterly Review, Fourth Quarter 1981, (ER) CIT 82-003, pp 12-13.

46) JETRO (1979); "China Newsletter", No. 22, July, pp 19-ff and Geraedts (1982) for a discussion of the development.

47) Cf. Geraedts (1983).

CHAPTER IV: THE ACQUISITION OF FOREIGN TECHNOLOGY

In development-related studies it is generally agreed that a certain input of foreign technology and technical know-how into a developing economy plays an important role in assuring economic growth. The opportunity which developing countries have of borrowing/acquiring technology and know-how from international sources can thus be assumed to represent an advantage.

IV.1 Mechanisms of transfer

The shift in the PRC's behavior regarding technology acquisition is not only a shift in content, but above all a shift in form. The most remarkable change after 1977-1978 was the move to diversify the means of acquisition.

Against this background, it appears appropriate to use an extensively comprehensive definition of the possible mechanisms of transfer. To begin with it will be assumed that technology is transferred when hardware, technical know-how, or technology-specific information is transferred from one geographical location to another. This process can take place through one, or a combination of, the following mechanisms: (a) sales of hardware; (b) licensing contracts; (c) design contracts; (d) contracts involving the transfer of managerial know-how; (e) direct foreign investments including equity joint ventures; (f) contracts involving marketing agreements; (g) training programs; (h) programs involving cooperation in the field of S&T and R&D; (i) education exchanges; (j) exchanges by means of specialized or even non-specialized literature; (k) information obtained at industrial exhibitions or fairs.¹

Some of the transfer-mechanisms are, of course, used more frequently than others. Depending on whether "tools" or "techniques" are the object of the transfer, either complete plants, equipment and machinery or production processes and know-how-procuring options will come into play. In general terms, licensing and/or direct investment by foreign interests appear to be the more common form of transfer; but the acquisition of complete plants or of pieces of equipment and machinery to be used for "reverse engineering" constitutes a similarly frequent method.² In the case of the PRC the latter method dominated to a large extent during the 1970's.

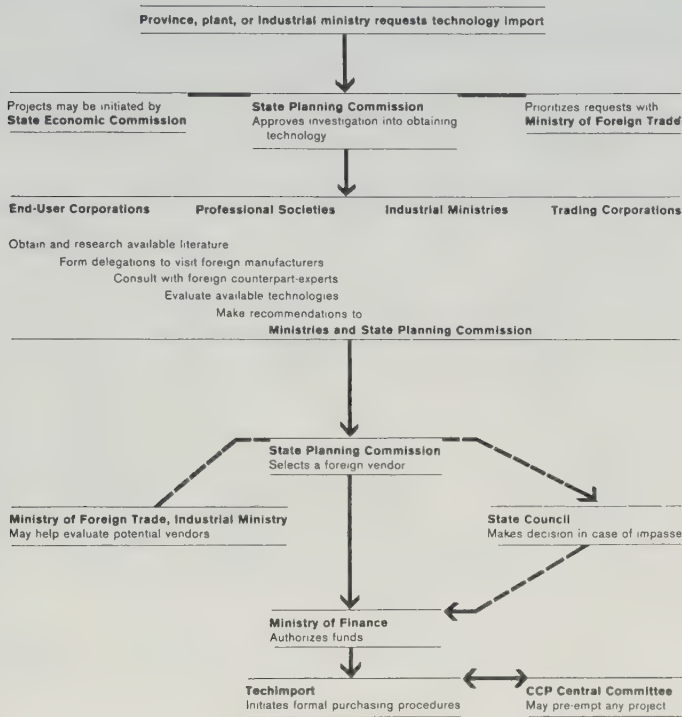
What appears to be of primordial importance in side stepping transfer-related pitfalls, is that the method of transfer has to be one which involves close interaction between the supplying and receiving parties.³ This interaction is of great importance because it can counteract adaptation and assimilation-related problems. The issue is pivotal since the efficiency of the transfer process and its effectiveness in terms of economic results are dependent to a large extent on the receiving party's ability to assimilate and subsequently diffuse and integrate the technology which is the object of the transfer. The issue of close interaction is of further importance because a given technology can be expected to reflect not only the inputs of the original user in terms of that particular user's requirements, but also the economic and socio-political or ideological environment in which that given technology was created and developed. In view of the "track-records" of a number of countries and technological sectors, it would seem that, if the problems related to assimilation, diffusion and integration are not properly dealt with, "technological islands", in a geographic as well as in a technology specific sense, are likely to develop, thereby greatly reducing the potential benefits of the transfer.⁴

IV.2 The PRC: Commodity Composition and Methods

In the present segments the focus will lie on the PRC's imports of what has been termed "capital goods", "machinery", "equipment" or "engineering products". Regardless of the name given to the category, in the present case, it essentially covers civilian industrial technology.⁵

Although the volume or turnover of the PRC's foreign trade and other economic relations only represents a fraction of its GNP, this fraction is of far greater importance to the country and its economic development than its size suggests.⁶ A country's ability to acquire and utilize certain goods from abroad, is in many ways a prerequisite for the maintenance of economic and political stability. Purchases, by the PRC, of non-ferrous metals, fertilizers, natural or artificial textile fibers and grain have been, and still are necessary in order to maintain economic stability while making use of existing domestic capacity. When viewed in terms of prospects for potential growth, the importance of the acquisition of foreign advanced technology such as complete plants, other equipment and machinery, and instruments, becomes obvious.

Figure 1 Outline of the Technology Import Decision-making Procedure: the 1970's



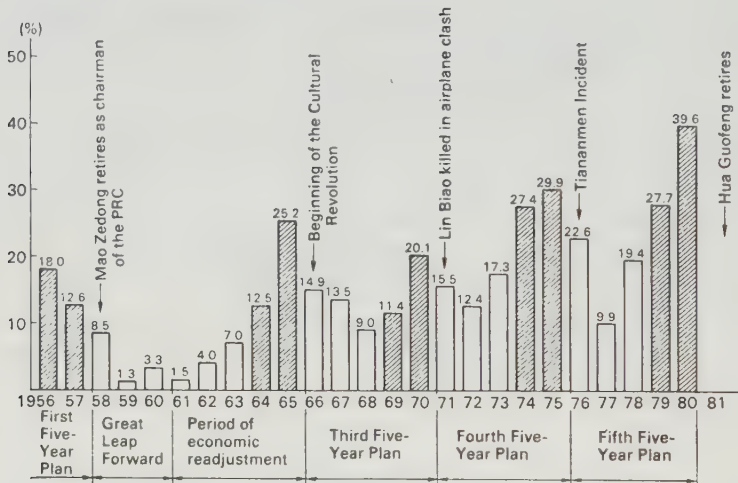
(see supra note 5)

The extent of the PRC's acquisition of civilian industrial technology and the significance of these acquisitions as a share of the PRC's total foreign economic relations have varied considerably since the foundation of the republic in 1949. As was indicated earlier in this volume, the country's development has, in broad terms, been characterized over the past thirty years by a pendulum-like movement between attempts to achieve rapid economic growth, and socio-ideological objectives. Essentially, the PRC's importation of foreign technology has experienced a co-variation with that oscillation.

Between 1950 and 1960, while trade and the PRC's imports grew significantly, non-Communist countries accounted for only 1/3 of the total. The Sino-Soviet schism, however, encouraged the PRC to diversify its trade and its sources of

supply, a development which by 1966 had resulted in approximately 75% of the PRC's trade being accounted for by the non-Communist countries. This trend continued and between 1971 and 1975 the non-Communist share of the PRC's trade rose to nearly 85%.

Figure 2 Cycles in the PRC Economy, Political Alterations and Technology Imports⁷



As Table 1 shows, during the first half of the 1970's the PRC's imports of industrial supplies represent the lion's share of total imports. While food-stuffs and capital goods represent far smaller shares, these commodities have generally attracted more attention. As was indicated in the introduction of this chapter, it seems reasonable to assume that this is chiefly due to the relative sensitivity of the commodities' nature and purpose; i.e., to complement a domestic agricultural insufficiency so as to assure the subsistence of the people, and to aid in complementing domestic technological insufficiencies in order to achieve economic development.

During the early 1970's, the PRC initiated, and subsequently brought to full development, a program aimed at the procurement of foreign technological capability mainly by the acquisition of foreign technical engineering products. Until 1978 this drive was characterized by the importation on a massive scale of so-called "turn-key" plants. As we have seen, between 1972 and 1975 con-

tracts accounting for approximately US \$ 2.8 billion out of a total in excess of US \$ 3 billion were signed, a trend which saw a final surge in 1978 after a lapse in 1976-1977. Obviously, other forms of equipment and machinery were purchased, but complete plants dominated the total picture to a large extent. Table 2 gives a breakdown of contracts for whole plants, by industry, for the period 1972-1979.

Table 1 Commodity Composition of Imports by Main Groupings: 1970-1975⁸
(million US \$)

	1970	1971	1972	1973	1974	1975
Total	2 245	2 310	2 850	5 225	7 420	7 395
of which:						
Foodstuffs	395	320	510	1 080	1 600	900
Ind. Suppl.	1 460	1 555	1 875	3 380	4 125	4 260
Machinery & Transport	375	420	445	725	1 650	2 210

Table 2 Contracts for Complete Plants, by industry: 1972-1979⁹
(million US \$)

	1972	1973	1974	1975	1976	1977	1978	1979
Petrochemicals	0	698	114	90	136	39	3 325	29
Iron and steel	0	0	551	0	40	0	2 978	312
Fertilizer	0	392	120	0	8	0	0	15
Coal and electric power	23	161	46	0	0	0	202	736
Transport	0	0	0	200	0	0	79	66
Communication and electronics	0	0	0	0	0	0	217	125
Nonferrous metals	0	0	0	0	0	0	127	3
Manufacturing	0	8	0	74	1	21	6	279
Petroleum and gas	0	0	0	0	0	20	0	31
Other	35	0	0	0	0	1	0	110
TOTAL	58	1 259	831	364	185	81	6 934	1 706

These figures, as well as other available data concerning the PRC's imports of tools, machines and equipment, indicate the importance accorded by the PRC authorities to the role of complete plants and assorted engineering products as vehicles for the transfer and acquisition of embodied technology during this period.

From 16.7% in 1970, via a peak of approximately 30% in 1975-1976 to a figure of 26.2% in 1979, imports of machinery and equipment have on an average represented between 20 and 25% of the PRC's total imports. Table 3 indicates the proportion of machinery and equipment as a percentage of total imports as well as the proportion of machinery, transport equipment and precision instruments respectively.

Table 3 Engineering Products as a percentage of the PRC's total Imports, as well as sub-categories expressed as a percentage of total category: 1970-1979¹⁰

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
Total	16.7	18.2	15.6	13.8	22.2	29.9	28.7	15.2	17.0	26.2
Machinery	52.0	51.2	47.2	42.6	46.7	57.2	82.6	45.2	57.9	74.8
Transport	42.6	44.0	48.3	53.8	50.6	40.3	17.5	54.6	42.1	25.2
Precision Instruments	4.0	2.4	3.4	2.1	2.4	2.3	2.6	3.9	3.7	4.3

The majority of the complete plant acquisitions were aimed at meeting areas of specific deficiencies, the objective being an increased production in the petro-chemical sector and in the fertilizer industry along with an increased output in certain sectors of light industry. In all, over 60 projects were initiated. The technology which was transferred in order to start these projects was large-scale, largely capital intensive, aimed at a high level of efficiency and demanding extensive use of automated control and the reliance on large quantities of thermal energy. The acquisition as a whole was realized at a rate of approximately US \$ 1 billion annual average for the first eight years of the decade.¹¹ The drop which appears in the statistical data for 1976-1977 was shown to be temporary when the surge of 1978 became evident, resulting in contracts worth US \$ 7 billion for a large number of complete plants.¹²

"Turn-key" plant purchases are interesting indicators of technology acquisition in that they are highly visible, can indicate investment and technological priority areas, and constitute an "all-in" technological package, including technical assistance and training.¹³ Thus, at an early stage in its complete plant "program", the PRC allowed a non-negligible number of foreign technical personnel to accompany the plants in order to assist with the cons-

truction and the organization of the projects. It has been estimated that as many as 3 000 foreign technicians and engineers visited the PRC for those purposes. In the case of a number of fertilizer plants, the foreign parent-company technicians did not only oversee construction of the plants but were equally responsible for basic design, engineering, procurement and the commissioning of the plants.¹⁴

IV.3 The "Four Modernizations" program and its impact on technology imports

The "Four Modernizations" program was conceived as a four-pronged strategy with the central objective of turning the PRC into a major economic and military power by the turn of the century. The program was first announced by Zhou Enlai in the middle of the decade but it was not until the beginning of 1978 that the newly re-organized post-Mao leadership managed to develop a working plan more effectively geared to the modernization effort.

Briefly, the objectives of the program were to upgrade the quality and volume of production in both industry and agriculture, to develop a domestic capacity in Science and Technology and to strengthen national defense. The PRC leadership publicly recognized the backwardness of the country's industrial and S&T base and indicated an increased openness to the importation of foreign technology. It also intended to make the knowledge acquired through technology purchases serve the development of the domestic S&T and R&D sectors. Parallel reforms of the educational system as well as the existing management and decision-making systems were also announced.

The eagerness to achieve the often completely unrealistic objectives of the modernization program led to the so-called "Great Leap Outward" in which the PRC sent large numbers of scientists and economic delegations abroad to trace and examine potentially useful technologies available in the non-Communist countries.¹⁵ This same eagerness was no doubt at the root of the signing, in 1978 alone, of US \$ 6.9 billion worth of contracts for foreign technology, mainly for complete plants. By the beginning of 1979, however, the PRC leadership recognized the often plainly unrealistic assumptions of the program. Apart from being overly ambitious, implementation, priorities and allocation of resources were, mildly put, rather vaguely defined. Some of the basic tenets of the program were reformulated as a result of the December 1978 Third Plenum

leading to a de-emphasis of heavy industry and a new emphasis on light industry, agriculture and the energy sector.¹⁶

The change in approach and emphasis since the beginning of 1979 can be traced in statistical data. Contracts for complete plants, which accounted for the better part of the US \$ 6.9 billion worth of imports in 1978, were down to US \$ 1.7 billion in 1979.¹⁷ Figures concerning the importation of machinery showed substantial gains, particularly in the subcategory "electrical machinery". This would tend to substantiate the drive for growing selectivity and the acknowledgement of the importance of "key" equipment. Equally significant is the evolution in the category "precision instruments" where expenditures virtually doubled in two years, growing from US \$ 215 million in 1979 to US \$ 297 million in 1980 and expanding to US \$ 407 million in 1981.¹⁸

Table 4 PRC Imports of Machinery and Equipment: 1979-1981¹⁹
(million US \$)

	1979	1980	1981
Machinery and equipment (Total)	3 843	5 407	5 111
Non-electric machinery	1 990	2 812	2 779
Electric machinery	542	1 071	1 333
Transp. equipment	1 311	1 524	1 000

Besides the drive for greater selectivity in acquisition and the increased specification, the change in approach became visible in another, different manner. Since 1979 the PRC has widened the scope of its methods of acquisition in a remarkable way. Within the general framework of its foreign economic relations, it diversified the means of gaining access to foreign technology. These new means are used parallel to the "traditional" means of acquisition indicated in earlier sections of this volume. The most generally noticed forms of this diversification were the acceptance of direct foreign investments and the creation of a number of so-called Special Economic Zones in 1979-1980 in selected provinces, aimed at stimulating Sino-foreign economic interaction and cooperation.

"Foreign investment" is a widely used term. The extent of the foreign interests, the various forms of involvement possible and the objectives of the different arrangements, are, however, not always clearly defined. Against the

background of the basically two-pronged nature of the PRC approach to foreign investments, it is important to distinguish among the various possible modes:

(a) Export Processing. In the case of export processing, the foreign firm supplies the necessary raw materials, semi-finished goods, components, etc. and the PRC firm processes, transforms or assembles in accordance with the requirements, design and specification stipulated by the foreign contractor. The finished product reverts to the foreign contractor and the PRC firm receives a processing fee.²⁰ The advantages of export processing for the PRC are multiple in that this arrangement engages local industry, utilizes possible excess industrial capacity, creates employment and earns foreign exchange. It also provides the PRC with an introduction to foreign markets and ideas and, in certain cases, introduces modern equipment.

(b) Compensation Trade. This mode is a variation on the same theme except that the PRC provides the factory and other buildings as well as labor. The foreign firm provides capital, technology, equipment, training and in certain cases managerial know-how. The foreign party is compensated either by receiving a share of the goods produced or of other goods agreed upon as acceptable substitutes.²¹ The interesting aspect as far as the PRC is concerned, is that once the final payments have been made the foreign equipment/technology reverts to the Chinese firm. Financially, the arrangement is interesting since foreign equipment is imported without disbursements of valuable foreign exchange. Another advantage is that ownership and management, in practical terms, are in the hands of the partner in the recipient country.²²

(c) Joint Ventures. It is necessary to make a clear distinction between cooperative production or joint production and joint equity ventures because the difference in the manner and the degree of foreign involvement can have, and in many cases has, tangible economic and political connotations.

In the case of the so-called cooperative production, the arrangement lies somewhere between compensation trade and the pure joint equity venture. It is essentially a technology transfer. The foreign partner in a practical sense assists the PRC counterpart with the production of a piece of equipment or other item by means of the process of licensing. The transfer of technology and technological know-how involved and its absorption by the PRC firm proceeds in phases which gradually lead to a point where the firm can complete the product mostly or entirely from its own material or components.²³ Payment

to the foreign firm is made over a varying period of time by the transfer of a share of the production output. The arrangement is profitable to the PRC because the either newly built or modernized production facilities are entirely owned by the PRC. Also, and this represents an important aspect when compared to the acquisition of complete plants or entire pieces of equipment, joint production yields foreign exchange savings and provides for a far more extensive and comprehensive transfer of technological know-how.

Finally, there are the so-called joint equity ventures, i.e., the joint ventures in the proper sense of the term. In this respect the PRC has stipulated that the share of foreign equity investment should not be less than 25%. Although no maximum limit for foreign investment has formally been set or indicated - which in itself is rather remarkable - in a majority of the approved cases, the PRC share has been equal or superior to 50%, a proportion which has been taken as a guideline for future behavior. At the outset, managerial responsibility has been organized through a rotating division of responsibilities. This mechanism enables the PRC firm to learn from the foreign firm's managerial expertise and to acquire the necessary know-how in order to take over the day-to-day running of the venture later on. It is in the joint equity venture arrangement that the dual purpose of the PRC's new approach becomes most evident. Under such an arrangement, there exist both the element of the transfer of technology in its widest meaning, covering the whole range from manufacturing to management technologies, and the element of securing investment capital for industrial and economic development. In contrast to export processing, compensation trade and to a certain extent joint production arrangements, joint equity ventures show a proportionally higher degree of sophistication and a more selective approach to foreign investment. Figure 3 provides an outline of the types of contract that are to be found within the framework of the various arrangements and the extent of the investment at the end of 1981.

From the point of view of both technology acquisition and access to investment capital, investment arrangements become "interesting" to the PRC at the compensation trade/joint production level of complexity. At this level investments concern relatively sophisticated projects and are often implemented by means of licensing, i.e., the sale of propriety know-how in exchange for fees or alternative forms of compensation. One of the most important sectors in this respect is the machine-building industry where electric power machinery,

turbine generators and instrument-making have been the objects of attention. Other areas of precision technology such as the production of internal combustion engines, valves and other hydraulic equipment are also part of this type of investment arrangement. By the end of 1981, the amount of foreign investment capital involved in this investment was in the US \$ 350 million range for approximately 700 small to medium-sized projects.²⁴

Figure 3 Varying degrees of complexity of investment arrangements²⁵

Type of investment	Sector	Purpose	Extent	Expected Develop.
Export processing	textile, handi craft, garment, electronics, electrical appliances, etc	generation of export revenues	approx. US\$ 500 M.	will level off
Compensation trade and joint production (licensing)	machine building, electric power machines, precision technology, etc.	generation of export revenues, transfer of technology and "know how"	approx. US\$ 350 M.	expected to grow substantially
Joint equity ventures	light industry, petro-industry, instrument making, electronics, pharmaceutical, textile, etc	import of capital, transfer of technology, "educational value"	approx. US\$ 200 M.	expected to grow substantially

In the case of the joint venture proper, the elements of technology transfer and use of investment capital are, as has been pointed out, most evident. This type of investment arrangement includes, for example, projects for the production of elevators but also projects in the light industry. The latter involve the development of manufacturing in pharmaceuticals, electronics and precision instrument industries. The potential impact in terms of qualitative development becomes especially salient when it is remembered that a sizable share of the joint equity venture agreements concerns the above-mentioned

type of sophisticated products, often in key industrial sectors. By the end of 1981, 30 such joint equity ventures had been approved and approximately 70 were being negotiated. The total foreign investment involved in the approved projects in this category is estimated at approximately US \$ 200 million.²⁶ Since mid-1981, the PRC has been active in opening the exploration and exploitation of its offshore oil reserves to foreign investment bidding. This will entail substantial investments in the joint equity venture category so that the figure given above can be expected to swell dramatically. An estimated US \$ 1 billion has so far been invested in this field and figures of US \$ 35 billion concerning potential development funds have been put forward in recent estimates.²⁷

In a development parallel to the one outlined above, the PRC by mid-1979 initiated the process of establishing so-called Special Economic Zones (SEZs). Four of these were established in the coastal regions of the PRC's southern provinces, Guangdong and Fujian. Apart from the Xiamen zone in the Fujian province, officially three, but for all practical purposes four, SEZs were planned in the Guangdong province: Zhuhai, Shenzhen including Shekou, and Shantou. The Xiamen zone in Fujian province is at an embryonic stage and of the other zones, Shenzhen, comprising Shekou, is the most developed.

The principal functions of the SEZs have been summarized as follows: (1) to serve as a mechanism for bringing foreign capital, technology, equipment and training into the PRC and to facilitate their distribution throughout the country; (2) to bring in foreign exchange; (3) to serve as experimental areas for a form of market economy; (4) to accelerate national development through regional as well as industrial competition.²⁸

The SEZs were created primarily with the objective of attracting foreign investment especially aimed at industrial development and to absorb foreign exchange from projects set up within the zones. A further objective of the SEZs is to obtain increased access to, and to facilitate the acquisition of, advanced technology and management techniques by means of the foreign investment. Through the SEZs the PRC is seeking to understand the development of modern capitalist economies and to accumulate experience in the formulation of regulations for economic development programs to be implemented in cooperation with overseas, Chinese or non-Chinese, business interests.²⁹ With regard to the latter part of these intentions it is obvious that the proximity of the

Shenzhen cum-Shekou zone and the Zhuhai zone to Hong Kong and Macao respectively, enables the SEZs to benefit from the infrastructural resources and the managerial expertise available in those two territories.

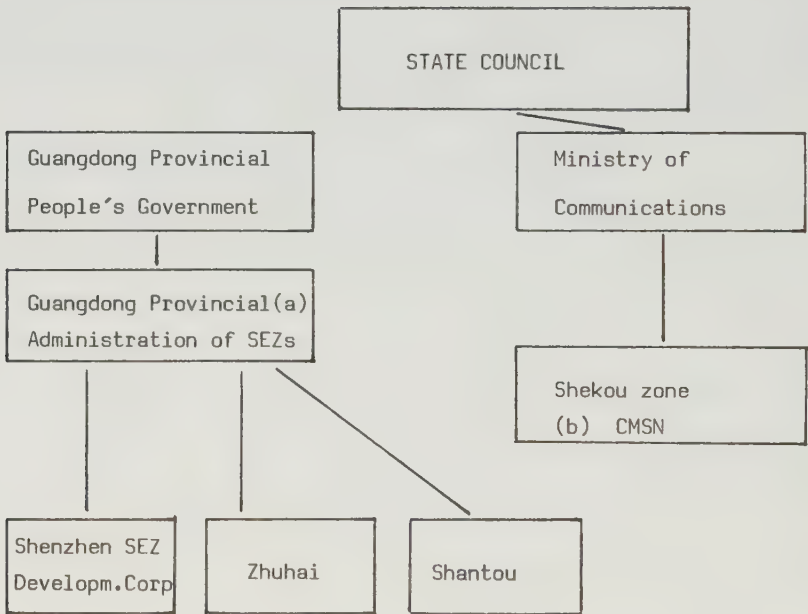
The general framework for the operation of the SEZs was indicated in the "Regulations on Special Economic Zones in the Guangdong Province" which appeared in August 1980. In order to facilitate the actual day-to-day management of the zones, details were specified in a series of four supplementary regulations which concerned such issues as entry/exit arrangements, business registration, labor and wage management, and land utilization, all of which were to become effective in January 1982. While further simplification of the regulations is expected in some of the areas mentioned above, the new legal framework includes steps taken by the central authorities to increase flexibility in investment procedures and curb bureaucratic influences during the present stage of development.

Three types of investment arrangements dominate in the SEZs: export processing, compensation trade and joint equity ventures. It is interesting to note that in the case of the SEZs, and contrary to arrangements outside the zones, the PRC allows foreign investment to the extent of 100% ownership, a limit which has been reached in a number of cases. Of the various forms of investment arrangements, export processing and compensation trade account for the major share. Joint production and joint equity venture occupy second and third place respectively. Due to a number of reasons, the exact extent of the investment is difficult to determine. Recent figures released by the SEZ authorities, however, indicate investments of approximately H.K. \$ 9 billion in the Shenzhen/Shekou zone and of approximately H.K. \$ 8.5 billion in the Zhuhai zone.³⁰ On the basis of developments over the past two years, one can conclude that, of the SEZs in question, the Shenzhen/Shekou and the Zhuhai zones have by far been the most successful. The Xiamen zone in the Fujian province and the Shantou zone in the Guangdong province have so far not shown any signs of effectively initiating development. On the basis of presently available information, it can be questioned whether the latter two have any life-expectancy at all.

Figure 4 illustrates the capital importance of actual channels of responsibility and lines of communication, and the distinction which should be made in the case of the Shenzhen/Shekou SEZs. Although geographically part of the

Shenzhen SEZ (it lies westernmost within the SEZs boundaries) Shekou is nevertheless an independent entity. As opposed to the actual Shenzhen zone, the Shekou zone is administered by an entirely different authority in the PRC governmental network, being directed by the China Merchant Steam Navigation Company Ltd (CMSN) based in Hong Kong. This company with a longtime Hong Kong background, is now under PRC control and is in fact directly responsible to the Ministry of Communications in Beijing, in turn responsible to the State Council.

Figure 4 Channels of Responsibility and Decision-making: SEZs in the Guangdong Province³¹



(a) Represented in Hong Kong through Guangdong Enterprises Ltd.

(b) Represented in Hong Kong through China Merchant Steam Navigation Co.

The importance of the distinction is underlined by the fact that, since the Shekou zone is not part of the Shenzhen zone administratively, and therefore not responsible to the Guangdong Provincial Government, it is not subject to

the frequent and stifling effects of the bureaucratic apparatus of the provincial government.³²

IV.4 Summary remarks

The investment figures mentioned in the preceding sections should be viewed against the background of the considerable amount - US \$ 225-300 billion - of investment capital estimated necessary for the first ten years of the modernization program, of the lines of foreign credit the PRC has at its disposal, and of the level of the country's factual foreign debt. The second is estimated at approximately US \$ 30 billion - often at very favorable interest rates - and the third at US \$ 4.4 billion.³³ Note also that the PRC's GNP for 1980 was somewhat less than US \$ 300 billion.

The conclusion must therefore be that foreign investment is proportionally very small. In itself this is less than astonishing when one considers that the process by which foreign investment and the participation of foreign economic interests has been made possible has been effective for some 2-3 years at best.³⁴ However, it should be realized that the real potential of the developments outlined above obviously does not lie in the pure financial volume of the investments, but rather in the qualitative inputs these investments represent, in particular in the licensing and joint equity venture arrangements. It is in this respect that the increased diversification of the means of gaining access to an acquiring foreign technology shows its potential. The brief overview of the sectorial spread of the investments given above, indicates that this "dual purpose" type of investment activity is taking place in technological areas of "key" importance, underscoring the drive for an increased specification of the technology the PRC needs to acquire.

NOTES TO CHAPTER IV

- 1) JEC (1982); Simon p 517.
- 2) JEC (1975); Heyman Jr pp 699-704.
- 3) Supra note 1, p 517.
- 4) The East European Bloc as well as the PRC have experienced and are still attempting to cope with this type of problem. The problem is one both of diffusion-related mechanisms in the recipient system and of fears concerning ideological contamination. Cf. Fleron (1977); "Technology and the Communist Culture", Preager, New York, for a very detailed discussion of relevant aspects of this issue.
- 5) What is meant here are commodities included under SITC categories 7 (including sub-categories) and 86. Although the author is aware that the categories are not totally inclusive of all manufactured goods, the classification is assumed to be sufficiently encompassing for present purposes. For Figure 1 see: NFAC (1979); "China, Post-Mao Search for Civilian Industrial Technology", (ER)79-10020 U, p 8.
- 6) The volume of the PRC's foreign economic relations is generally recognized as representing something between 4-6% of the PRC's GNP. [See for instance Eckstein (1977), Barnett (1981), Szuprowicz & Szuprowicz (1979) and JETRO (1979)].
- 7) Shimakura, T; "Cycles in the Chinese Economy and their Politico-Economic implications" in "The Developing Economies", Institute of Developing Economies, Tokyo, Japan, No 4, December 1981, p 375. The figure applies to Japanese exports to the PRC. Additional material shows the trend to be general.
- 8) Figures derived from JEC (1979); Batsavage and Davie p 738.
- 9) NFAC; "China International Trade". Quarterly Review, Fourth Quarter 1979.
- 10) Figures derived both from JEC (1978); Batsavage and Davie p 738 and JEC (1982); Simon p 533. Due to different tabulation and because of rounding of figures, totals do not always add up to 100%. Also see Brown (1980) pp 153-172, especially p 169.
- 11) Barnett (1981) p 189 for a detailed discussion of relevant figures.
- 12) Ibid. p 189-190.
- 13) Brown (1980) p 162.
- 14) JEC (1982); Simon p 520.
- 15) The PRC leadership was at the time talking in terms of 120 large-scale industrial projects to be put on line before 1985, as well as of augmenting steel production from 31.7 million tons in 1978 to 60 million tons in 1985, of raising coal output by 50% in ten years and of quitupling crude oil production over the same period. For a discussion of the programs see Baum (1980).
- 16) NFAC; "China: The continuing search for a modernization strategy"; (ER)80-10243, April 1980. The reference is to the Third Plenum of the 11th Central Committee in December 1978.
- 17) NFAC (1980); "China: International Trade", Quarterly Review, Fourth Quarter 1979, (ER CIT)80-003, pp 21-30.

- 18) NFAC (1982); "China: International Trade", Quarterly Review, Fourth Quarter 1981, (ER CIT)82-003, Appendix, Table 6.
- 19) Ibid. Appendix, Table 6.
- 20) The details of these various modes of foreign investment and cooperation were extracted from issues of the Far Eastern Economic Review, China Trade Report, China Newsletter, the China Business Review and the World Bank Report on the PRC.
- 21) The latter arrangement is relatively rare since rather difficult and complicated negotiations are involved. Coal for cars and similar substitute arrangements are known. Although the following has not (yet) occurred, one can easily imagine the problems involved in trying to negotiate a just compensation for high pressure valves when offered duck eggs.
- 22) It is in this regard interesting to note that the USSR and the other countries of the COMECON bloc to a large extent favor compensation trade arrangements.
- 23) Gang Xian in China Business Review, July-August 1979, p 17. Examples are the McDonnell's Douglas DC9 parts deal and the less successful attempt by Rolls Royce involving Spey jet engines.
- 24) Geraedts [in J Domes, ed. (1983, forthcoming)] for a discussion of the subject.
- 25) Figure 3, Ibid. The figures cover the development until the end of 1981 and do not take into account "letters of intent", etc.
- 26) For sources of further details concerning the estimates see supra note 20.
- 27) China Trade Report, August 1981. Ji Qongwei, member of the State Administration for Investment Control, indicates the existence at that time of four projects for joint exploration and possible exploitation of offshore oil reserves. The combined investment was given as US \$ 900 million. Estimates were further communicated to the author by members of the business community in Hong Kong. For further reference Cf. Ta Kung Pao, November 25, 1982. JETRO indicates US \$ 1 billion while the China Business Review estimates investments at approximately US \$ 1.4 billion.
- 28) These were summarized by Xu Dixin, director of the Institute of Economics at the Chinese Academy of Social Sciences. See Geraedts; "The Special Economic Zones in the Guangdong Province", Swedish Export Council, Stockholm, 1982, p 1.
- 29) Policy statements also indicate that the SEZs are further intended to be more or less self-contained pilot projects and testing grounds for integrated economic development. Further, the SEZs are to provide economic development to the economically generally depressed areas in which they are located, with the possible exception of the Zhuhai SEZ. Ibid.
- 30) Ta Kung Pao, November 25, 1982. (1 US \$ = 6.5 H.K. \$).
- 31) Geraedts (1982) p 15.
- 32) For a detailed analysis of this issue area consult supra note 28. Regarding the stifling effects of the bureaucratic apparatus, there is the case, well-known in Hong Kong, of a foreign firm which in the course of its operations had to secure clearing from 12 (sic) different Shenzhen SEZ authorities to import one utility vehicle from Hong Kong into the zone.
- 33) The figures quoted are from JETRO. They are to some extent in disagreement with the figures given in the World Bank PRC Report. For an in depth dis-

cussion consult JETRO; China Newsletter, No 35, November-December 1981.

- 34) Obviously, there are a number of other factors which explain the relatively small extent of the foreign investments: lack of absorptive capacity, political obstacles, etc. These traditional factors would require, and merit, an analysis in their own right. For a very detailed overview of the principal laws and regulations governing foreign investment in the PRC, consult China Business Review, September-October 1982.

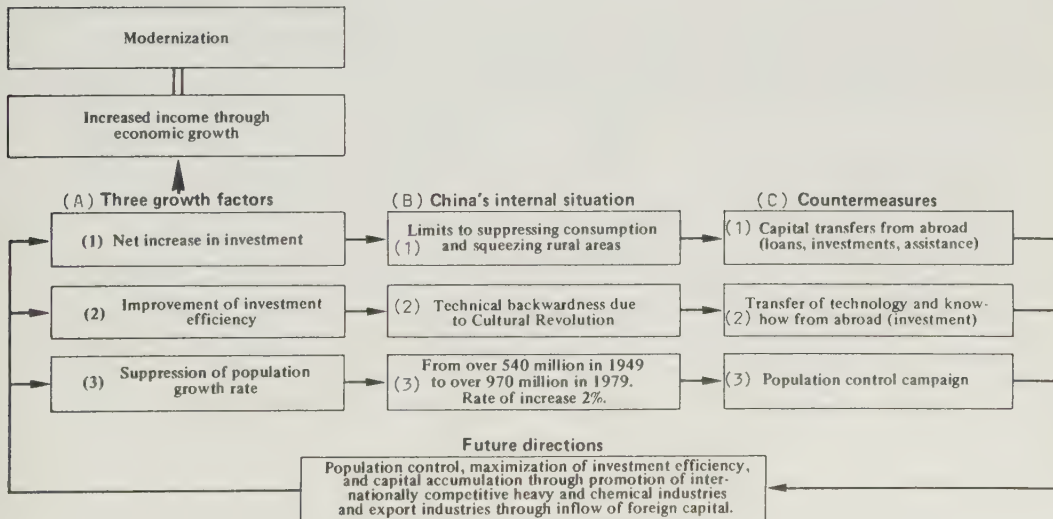
CHAPTER V: "RESTRUCTURING POLICY OR THE STRUGGLE FOR POWER?" AN ANALYSIS

In the following, an overview will be given of two issue-areas which have influenced the alteration of the PRC's approach to its foreign economic relations and its stance on the importation of foreign technology. Subsequent to these two essentially "technical" explanations, an outline will be given of some of the characteristics of the PRC's political system. In that context, problem-areas relative to the formulation and implementation of policy will be touched upon. Finally, conclusions will be discussed.

V.1 Economic and financial factors

Figure 1 shows a schematic model of a number of factors and mechanisms which influence the PRC's economic system, some of the most important problems and some of the countermeasures necessary to optimize the three crucial factors of economic growth outlined in the model.

Figure 1 Prerequisites and obstacles to economic growth: the PRC¹



As is shown in the model, economic growth in the PRC depends on three major factors: a net increase in investment, the improvement of investment efficiency, and the suppression of population growth. While each of these taken separately is important in determining the pace and extent of economic growth, in combination they represent what amounts to the "sine qua non" for such growth. Point A3, B3 and C3 are beyond the scope of this study. The focus will lie instead on the relationship between B1 and C1, and in the following section on some aspects of the relationship between B2 and C2.

Analyzing economic mechanisms and development, especially when they represent crucial elements which in turn influence the course of other events, should be undertaken with the characteristics and limits of the system under scrutiny in mind. This is particularly true in the case of a country such as the PRC, where most things can be given political significance and where economics and politics are closely interwoven.

In this respect it has been pointed out that the model for economic development in use in the PRC throughout the better part of the 1970's basically constituted of three major ingredients: (a) the Soviet model, i.e., a centrally planned economic system; (b) the Stalinist development strategy, i.e., the "Big Push"; and (c) Maoist ideology, i.e., radical principles.² The central ingredient in the economic model is the economic system itself: a command economy, characterized by centralized planning and the existence of a state monopoly. The adoption of this type of economic system, by virtue of the system's basic tenets, implies placing a more than substantial control over the mobilization and allocation of resources in the hands of the central planning authorities. It subjects these central planning authorities to a constraint which has proven to be virtually impossible to cope with, namely the collection, processing and the utilization of statistical data aimed at planning and securing economic performance. The central planning authorities are also expected to assure the verification and the correction of the implementation of policy. (It should be kept in mind that - in theory at least - there is no reason why the central planning authorities cannot use this capacity, to control, verify and correct, or favor any given sector of the economy should they deem it necessary).

An additional characteristic of the Soviet-style command economy, and of the PRC model, is the Stalinist approach to economic development. This approach is characterized by a drive for a very high rate of investment and growth in

heavy industry. In many respects the emphasis on this sector of the economy precludes the development, even at a significantly lower rate, of the agricultural sector, light industry and also the raising of the general standard of living.

Finally, there is a third element which renders the PRC's system unique: the influence of Maoist ideology. Although the extent of the influence exerted by Maoist ideology on economic decision-making and economic activity has varied over time, this influence was an integral part of the PRC's economic development model until the late 1970's. Maoist economic principles include: local, regional and national self-sufficiency, limited dependence on foreign trade or assistance, the reduction of specialization in the division of labor, the elimination of an explicit hierarchy of authority, responsibility based on skill and expertise, the politicization of economic decision-making and policy determination, and reduced emphasis on traditional economic criteria such as cost-benefit calculations.³

Evidently, a relationship exists between this economic system, its principal effects, and the alteration of the PRC's stance on its foreign economic relations. The importance of some of the obstacles inherent in the system in terms of the influence they had on the restructuring of foreign economic relations is to some extent illustrated below.

When those in favor of conventional planning tried to improve the relatively uninspiring performance of the PRC economy and remold a number of the deficient mechanisms in the system during the early 1970's, they had to work within the context outlined above. Improving the performance of the PRC economy entailed not only the necessity of improving the efficiency of investments in general, but also, the absolute need to generate a growing volume of necessary investment capital. This issue is not particular to the PRC. Generating investment capital is one of the major difficulties encountered by most developing countries in their attempt to assure economic growth. A number of factors particular to the PRC system, however, through their secondary effects, combined to induce change.

In an attempt to cope with the problem of investment capital, the leadership at first increased the percentage of the national product used as investment capital. The technique used to this effect by most developing countries is one of promoting domestic savings while simultaneously promoting capital

transfers from abroad. Because of its adherence to the principle of self-reliance, the PRC on the whole refused to use the latter option. Instead, it opted for reliance on funds generated by domestic savings. The principal means of achieving this were non-remunerated labor, suppressed increases in wages, suppressed consumption and the well-established Chinese practice of "squeezing" the agricultural sector. The method of generating capital through the exploitation of the agricultural sector is by no means unique to the PRC. What is particular, however, is the use of a price differential known as the "scissors' gap". Through this differential, the state generates financial means which in turn can be used as investment capital by means of an artificial price gap between agricultural produce, on the one hand, and industrial products, on the other.⁴ The result of the price differential - the profits - may constitute as much as 70-80% of the state's annual revenue. In addition, one should note that the state generates revenue by taxing agricultural products. Since the state is the principal investor and, since the major share of the state's revenue derives from the rural sector, that sector clearly represents the primary source of revenue for investment in other sectors.⁵

Along with having to find a solution to the problem of generating sufficient domestic capital for both investment and the acquisition of technology, the PRC was faced with a problem at the level of its balance of payments. This problem related particularly to the country's lack of hard currency to pay for the necessary imports. The net "earnings" the PRC derived from its exports to "hard currency countries" between 1972 and 1976 grew from US \$ 2.0 million in 1972 to US \$ 4.95 million in 1976.⁶ Although these PRC exports were paid for to a very large extent in hard currency and although, in terms of value, exports increased by nearly 2 1/2 times during that period, the earnings were proportionally low. What is perhaps more important is that the annual rate of growth showed a remarkable slowdown over those years, dropping from a 66% increase between 1972 and 1973 to a mere 4% increase between 1975 and 1976. In other words, hard-currency export earnings stagnated.⁷ A breakdown of the composition of the PRC's exports to the "hard-currency countries" (a composition which can be assumed to represent the PRC's hard-currency capability) shows that they were dominated by primary products (SITC categories 0-4) which accounted on the average for approximately 57%. Intermediate products (SITC 5-6) accounted for approximately 28% and finished products (SITC 7-8) for approximately 13%.⁸ It should be noted that not one of the categories showed any significant growth during the period, especially not the finished products

category. This led one analyst to conclude that:⁹

"Given the leadership's conservative financial policies, (.....), the ability to increase imports will rest largely on hard currency export performance, which in the near to medium term appears to have only moderate growth potential".

Although hard-currency earnings are important, they provide only a single indicator. It may therefore be useful to review the evolution of the PRC's balance of payments, its current account balance and its financial balance gap. The PRC's financial balance with the non-Communist countries in 1972, showed a trade surplus of US \$ 310 million and a deficit in invisibles (including services and transfers, receipts from transport costs and Overseas Chinese remittances, down payments on plants, and deliveries of PRC foreign aid) which amounted to US \$ 40 million, producing an overall current account surplus of US \$ 270 million. At the same time, the country was paying US \$ 190 million in debt service payments and drew on suppliers' credit for an estimated US \$ 240 million. As a total therefore, its financial balance showed a surplus of US \$ 320 million for that year.

The balance of trade, which includes the expenditures for imports and the earnings of exports, does not provide a complete picture, however. This is highlighted by the fact that the PRC's current account balance is negative from 1973 through 1975 while its financial balance gap is essentially positive for the period as a whole. In terms of hard currency, the PRC's balance evolved from a US \$ 25 million surplus in 1971 to a US \$ 2.4 billion deficit in 1976.¹⁰ A substantial part of the explanation as to how the PRC's financial balance gap was maintained on the positive side between 1971 and 1976, with the exception of 1974, is provided by the PRC's use of short-term - 6 to 18 months - and medium term - 5 years - credit to stop the gap. From having drawn US \$ 240 million in short-term credit in 1971, US \$ 240 million in 1972 and US \$ 530 million in 1973, the PRC in 1974 initiated the use of medium-term credit which caused a jump in the figures for 1974 and 1975 to levels of US \$ 1 billion and US \$ 1.4 billion respectively. While figures were positive in 1977, by 1978, both the trade balance (1.3 billion US \$) and the current account balance were negative, the latter amounting to US \$ 700 million.¹¹

The announcement of the "Four Modernizations" program must be seen in direct relation to the above figures. When, after the struggle over succession had been settled provisionally, the leadership announced the "Ten Year Plan for National Development" in 1978, it must have been aware of the general out-

line of the financial situation, if not of all the details. Export-earned hard currency accounting for very little, investment capital as well as funds for the acquisition of foreign technology thus had to be generated domestically or provided by external sources, i.e., credit or direct foreign investments.

Economically speaking, the PRC's altered approach to the conduct of its foreign economic relations was brought about to a certain extent by deficiencies in the system and by the unsatisfactory performance of important sectors of the economy. It seems to have been fairly rapidly recognized by certain segments of the new leadership that the PRC had absolutely no means of domestically generating the capital needed for necessary investments, an estimated US \$ 225 to 300 billion. Statistics show that total revenue in 1978 amounted to US \$ 67 billion. Also the method of accumulating capital by suppressing consumption and increasing savings had reached the limits of its potential.¹² Wages had been suppressed for a long time and further suppression of consumption would have had negative effects on the already low work incentive. The rural areas which already suffered from low productivity and the effects of the price differential were of no further use as sources of capital.¹³

With respect to the overt and substantially more large-scale use of foreign capital and/or credit for the acquisition of technology, it has been pointed out that the PRC did not have the US \$ 70-80 billion for that purpose indicated in the Ten Year Plan. Although the PRC by 1978 and 1979 had secured substantial lines of credit, its foreign reserves plus gold holdings were estimated at US \$ 3.5 billion in 1979, sufficient for approximately 5 months of trading, in terms of imports, at the 1978 level.¹⁴ One analysis suggests that:¹⁵

"Long before, China's leaders recognized that economic growth was severely restrained by low productivity, largely the consequence of technological stagnation during the Cultural Revolution, and that in order to achieve their modernization goals, they would have to raise productivity, and thus maximize investment efficiency, by introducing advanced plants and technology and absorbing know-how and technical expertise from foreign industrialized nations. Given the insufficient supply of foreign currency to finance these objectives, China's leaders were forced to recognize the inevitability of a foreign debt".

Denny and Surls argue that the role played by the agricultural sector, its irregular and poor performance, among other things, is of importance in explaining part of the fluctuation in the PRC balance of payments, and also in explaining PRC's revised stance on the use of credit. They state that:¹⁶

"From the point of view of the annual flow of repayment obligations the most striking point is that if China had not been forced to greatly increase agricultural purchases in 1973 and 1974, repayments during the Fourth Five Year Plan period would have been very small. Most of these repayment obligations arising from the complete plant import program began to come due only in 1976, peaked in 1978, and then continued at high but declining levels throughout the rest of the Fifth Five Year Plan period. What in fact happened, however, was an immediate jump in payment obligations to 12% of hard currency export earnings in 1974. The repayment service ratio continued to rise until it reached 23% in 1976 when the first large scale repayments for plant purchases began".

Regarding the importance of exports in influencing the repayment service ratio, they argue that:¹⁷

"Given the rapid expansion of Chinese exports in the early 1970's and the expansion of trade supporting institutions and facilities, it is clear that the trade expansion was expected to continue. Thus, from the vantage point of 1972 and 1973 (when the negotiations for the complete plants began in earnest) the commitments that were made must have appeared prudent and modest in light of what appeared to be expanding export markets and improving terms of trade. For example, projecting a 10% export growth rate beyond 1973 would have been quite reasonable in view of the record of the preceding years. Under this assumption, the repayment commitment for complete plant purchases would never have exceeded 8% of the total projected hard currency export earnings".

While the initial reaction to the negative developments the country experienced in 1974 and 1975 was a reversal to an, if possible, even more conservative financial approach, which included stopping negotiations for complete plants and re-emphasizing self-reliance, the experience of those years did leave behind the outline for an approach which was to be brought into more substantial play after 1978.

V.2 Technology and S&T policy-related factors

The opening years of the 1970's witnessed the reversal of some of the approaches advocated during the most "militant" phase of the "Cultural Revolution". One of these concerned the PRC's reliance on technology acquired abroad. Between 1972 and 1978 the country implemented an acquisition program characterized by the purchase of complete plants and a wide array of other engineering products. This program, in a rather typical Chinese manner cryptically dubbed the "Four-three" scheme because of the initial budget allocation of 4.3 billion, was above all aimed at countering basic shortcomings in production in important

industrial sectors such as chemical fertilizers, petro-chemicals and light industry.¹⁸ Essentially, this approach was altered, beginning at the close of 1978. In this section, an overview will be presented of some of the possible technology and S&T policy-related reasons for the change in approach.

As was indicated in the preceding section, one set of explanations for the PRC's change in approach to the conduct of its foreign economic relations and the acquisition of foreign technology can be related to financial determinants. It will, in this section, be submitted that apart from the results of the malfunctioning of the economic system, an additional explanation can be found in the constraints the PRC experienced in connection with the proper integration and utilization of the technology it had imported. This state of affairs was highlighted by the growing acknowledgement of the existence of such problems in the media after 1979. The PRC's experiences during the 1972-1978 period indicate that available technical and related capacities for the successful assimilation of foreign technology were generally deficient.¹⁹ Available mechanisms for the allocation of plant inputs were inadequately developed and failed to ensure the efficient handling of plant construction and operation. A further problem was the presence in key positions, of personnel better equipped with suitable political qualifications than with adequate technical training. For all practical purposes these administrators and technicians were incapable of handling the generally complex tasks related to the efficient integration of foreign technology or of administering and managing the operation to specification of the large-scale, technically complex plants introduced in the sectors mentioned above.

The country's experience with the acquisition of complete plants, in particular, indicates that its receptive capability was far from sufficient and that mechanisms for the allocation of plant inputs were insufficiently developed in terms of ensuring efficient plant construction and, above all, operation.²⁰ There are indications that approximately 2/3 of the total number of imported plants experienced tangible problems related to plant construction as well as to plant start-up.²¹ The nature and the extent of the problem-areas have been summarized as follows:²²

- (a) "Delays in construction and operations". By the end of 1977, 11 of the 24 projects scheduled for completion by the end of the year were delayed for 12 months or more.
- (b) "the majority of the plants have frequently been operating under capacity". Of the 17 plants finished before 1978, 9 were operating at an acceptable energy efficiency/output ratio of 90 percent, including 7 of the large

chemical fertilizer plants. The other plants, (.....) were all operating at significantly lower rates. (76%, 65% and 50% respectively). Four of the synthetic ammonia plants (Guizhou, Guangzhou, Nanjing and Anging) were also operating at the 50 percent level.

- (c) "The return on investment for purchase of the plants have been poor". Only 25% of the projects have produced an acceptable rate of return since their completion. Several of the petrochemical plants, for example, have only returned 70 percent of their total investment even though many began operating in 1976-1977. The Wuhan Iron and Steel mill project was cited as a particular example of a problem-plagued plant. Further, six of the 13 chemical fertilizer plants imported during the 1970's were also plagued with problems. The plants at Hubei and Hunan, for example, were operating at a loss due to increases in the price of light oil, and the chemical fibres projects in Sichuan and Liaoning were unable to start up at the projected time due to difficulties with peripheral design, equipment quality and management, resulting in a 3 billion yuan loss in state revenues. The start-up of the Sichuan Vinyl Plant referred to above, was delayed because of lack of supply of natural gas immediately after the plant's completion.
- (d) "Duplication of equipment and technology imports". This represents a major problem due to lack of communication and coordination within the Chinese bureaucracy. Between 1972 and 1979, 252 duplicate sets of equipment covering 17 categories of items were imported. Further, there are indications that most of these items could have been produced domestically. As a result a large number of domestic producers of machinery and equipment were left with idle capacity.

Thus, while a sizable portion of the imported complete plants represented a contribution to the expansion of production in a number of sectors of the PRC economy, the country experienced real problems in assimilating, diffusing and integrating the technology embodied in these plants.

Although the background and the inadequate training of many of those in charge to a large extent precluded any serious evaluation of the constraints encountered, leaving the country unprepared to handle the massive influx of technology which was the result of the 1978 shopping spree, some diffusion of technology obviously occurred and valuable experience was gained, especially in the petrochemical sector.²³ While many of the imported plants did contribute to an increase in production, extraction and diffusion of "embodied" technology was far less successful, precluding any possible "learning phase" of the technology transfer.

The PRC's decision to opt for a more cautious program of economic readjustment resulted in several far-reaching changes in the strategy as well as the objectives for the acquisition of foreign technology. In February 1979 took place what amounted to a comprehensive reassessment of the PRC's approach to the acquisition of foreign technology. The principal objective was to come to grips with a crucial problem which has been summarized as follows:²⁴

"At the present time, the most prominent problem about our country's policies concerning technology is that the internal relationship between technology and the economy is severed, and that people pay attention to whether technology is advanced but pay little attention to whether technology is economically rational and whether the effects are harmful".

A different directive containing nine "principles" spelled out the basic guidelines for future technology acquisition:²⁵

"To import technology and equipment in the future, we must adhere to the nine principles: (1) We must ourselves produce what we can even if the quality and function of our products are slightly poorer. Of course, we must strive to carry out technical innovation and modification to improve our products' quality, quantity and function. (2) After technology is improved, if we can manufacture the equipment, we must not buy it abroad. (3) After key parts of a complete set of equipments have been imported, if we can round off the complete set, then complete sets must not be imported. (4) After a complete set of equipment has been imported, if we discover that we can produce part of the equipment which measures up to the standard, we can buy parts of the equipment. (5) We must work out unified plans for a products' series and models and gradually form a series of Chinese products. We must not import the same things from many countries, resulting in an "international brand". (6) We can hire foreign specialists to help us design and build complicated and comparatively large-scale equipment. They can also help us for some time after it is built, until we have the technical personnel to run it. (7) We must use all types of foreign advisory organizations and ask them to provide us with technological information and suggestions from which we can make a selection. (8) Importing technological patents and equipment must be reported to departments concerned in our country. Some must be used in a unified way or in common. They cannot be monopolized by anyone, to prevent other units from re-importing them. (9) While importing technology, we must organize the necessary science and technological forces to carry out research to insure that we can make copies and our own creations."

This directive and the set of guidelines it contains, leads one to the conclusion that certain strata of the PRC leadership recognized the necessity of applying a greater degree of selectivity and raising the level of specification in the acquisition process. The necessity of ensuring a greater degree of compatibility between the acquired foreign technology and the domestic technological base had come into focus.

In practice, the result of this reappraisal was a marked de-emphasis on the acquisition of complete plants. While one of the reasons for this development was certainly financial, the principal reason for the retreat from the previous approach appears to have been a recognition of the limited intrinsic value of this mechanism in terms of real transfer of technology and know-how:²⁶

"Even if we have bought advanced items, we must import the diagrams and data into our country at the same time, so that we can copy them. If we only buy things and do not know to produce them, we cannot promote productive technology. We bought 13 sets of equipment to produce chemical fertilizer in the past but since we did not import the diagrams and data at the same time, we could not produce a 14th set of equipment for a long time. This is a lesson. We must not only copy foreign models but also make our own creations. If we only import, but do not make our own creations, we will always lag behind others, be unable to surpass them and be like fools. Those with the lazybones idea of buying everything and continuing to buy can never realize the four modernizations."

During the first six months after the 1978 Third Plenum decisions, various sources stressed that although much attention had until then been paid to the importance of acquiring foreign technology, the wrong objects had been focused upon. In an interview, Gu Ming, Vice Minister in charge of the State Planning Commission, commented on the change in focus and on the need for greater selectivity:²⁷

"....., we have been importing mainly complete sets of equipment. This state of affairs must be changed. We must gradually change to importing mainly technologies (including the technology to manufacture key equipment, selectively purchasing key equipment,.....) We should not import complete plants if importing key equipment will solve the problem".

The announcement of the "Four Modernizations" program initiated a number of changes in attitude, and in some areas an increased openness to acknowledging the existence of deficiencies and problems. With respect to technology-related issues, the program, recognizing the underdevelopment of the country's S&T base, announced the extended use of foreign technology as well as the intention to use this new technological knowledge to aid in the development of the domestic S&T sector, an announcement which clearly indicated a novel approach. The new importance attached to Science and Technology was underscored by the National Science Conference held in March 1978 and by some of the more significant revisions in the National Science Plan introduced after the December 1978 Third Plenum.²⁸ At the National Science Conference an outline was given of central problem areas related to S&T and goals were indicated for the future role to be played by this sector. The three main problem areas were listed as: (1) the role of Science and Technology as part of the "productive forces"; (2) the relationship between Science and Technology research and industrial production; (3) the lack of a stratum of properly trained scientific and technical personnel and (4) the very problematic division of responsibility between the Science and Technology and Research and Development sectors, and the CCP. In other words,

the issue of the extent and form of party supervision and control over the S&T and R&D sectors.²⁹

The goals to be attained by the development and upgrading of the Science and Technology sector were indicated in the "Outline Plan for the Development of Science and Technology, Relevant Policies and Measures" (1978-1985) and can be summarized as follows: (1) The level to be reached by the mid-1980's was to be equivalent to that of the so-called advanced nations' in the 1970's; (2) the training of no less than 800 000 professional scientific researchers; (3) the building of an unspecified number of scientific research and testing centers; (4) the completion of a nation-wide system of scientific and technological research.³⁰ The plan, evidently intended as a comprehensive framework, constituted an unusually frank assessment of the country's weaknesses in matters of S&T. It represented a step in the PRC's overt recognition of some of its problems, and an indication of an effort to formulate a program aimed at overcoming some of the major obstacles to the smooth operation of its S&T sector.

It is beyond doubt that many of the problems and constraints which plagued the PRC's Science and Technology sector, notably with respect to the assimilation and utilization of acquired foreign technology and know-how, were the result of the persistent effects of some of the policies of the "Cultural Revolution". The most tangible example is probably the devastating effect of the educational policies pursued during the 1966-1976 period which resulted in a severe shortage of properly trained and qualified technical and scientific personnel.³¹ Although the PRC's pool of scientific and technical manpower grew considerably over the years, there existed large variations in the quality of its training, due to the nature of the educational policies of the preceding years. It is unlikely that the educational system was capable of producing the number of highly trained scientists and technicians mentioned in the "Outline Plan" - 800 000 by 1985 - nor was it capable of meeting short- and medium-term demand for higher education.³² Suttmeier states that:³³

"In this context, programs to upgrade lower-level manpower take on special importance. China has had considerable experience with lower and middle level manpower training, dating back well before the Cultural Revolution. The Cultural Revolution spurred an expansion of this type of training, and the Cultural Revolution inspired 'May 7' and July 21 universities' were enrolling some 780 000 people in 1976."

He goes on to note that:³⁴

"Contemporary assessments of these institutions are not flattering. The

'May 7' and July 21 universities' have been radically reformed and the Cultural Revolution approach to lower and middle level manpower training have been criticized both in terms of quality and in terms of the number of individual served. (.....), reportedly the educational level of most workers is still below middle school level."

Another, different set of problems, also the result of policy decisions of the foregoing years, was built into the structure of the PRC's Science and Technology system. The principal guideline for scientific research during the years prior to 1979 had been the so-called "open door scientific research" introduced during the "Cultural Revolution". This policy had two main features: (1) it was based on the three-in-one combination of workers or peasants, cadres and researchers; (2) it was also based on a three-in-one combination of research, production and application.³⁵ At the time of its introduction, the objective of this approach was said to be to integrate laboratory work with the practical experience of workers and peasants. This integration would then help the "ideological remolding" of the scientists and technicians involved, in addition leading to the further development of scientific research.³⁶ It is beyond the scope of the present overview to assess the gains and failures of this approach. Suffice it, therefore, to note that the PRC's S&T and R&D sectors at the time of the re-appraisal were still very much characterized by a high degree of centralization and by a low degree of linkage between these sectors and the actual production process. The revival of the State Science and Technology Commission can, therefore, be interpreted as an attempt to come to grips with these two drawbacks.³⁷ In addition to the directly observable effects of the "Cultural Revolution" - inspired approach to the development and organization of the Science and Technology and Research and Development sectors, it can be demonstrated that the organizational model, the structure of the system as a whole, can be taken as one of the principal factors responsible for the compartmentalization of the sub-systems. In this sense, the Soviet-inspired model which influenced much of the PRC system is at the root of the compartmentalization and the resulting weak linkage, in practical terms, between the research unit and the potential end-user. This state of affairs is essentially due to the fact that in a system based on the Soviet model, the end-user has very little incentive to adopt innovations and to move beyond the central goal of the planned system; i.e., output maximization.³⁸ Market-type incentives which are known to stimulate links between the S&T and R&D sectors and potential end-users, thereby promoting technological innovation as well as useful forms of feedback, are, in a planned system, obviously non-existent.

The National Science Plan outlined in March 1978 was subsequently fundamentally revised. Instrumental in this revision was the growing realization that the heavy emphasis on Science and Technology and its importance for the "Four Modernizations" program (S&T was at times ascribed what amounted to near-miraculous properties) was not producing the expected results. The results expected of an increased emphasis had since been re-defined in terms of increased economic efficiency and output. The decisions announced at the December 1978 Third Plenum essentially revised the initial objective of modernizing the whole spectrum of domestic Science and Technology capacity. They implied scaling down the level of ambition and focusing on applied research and on the integration and related development of technology. The main guidelines for this new approach were summarized as follows:³⁹

"..... to develop science and technology in harmony with the economy and society, and the most important task of science and the most important task of science and technology as the promotion of the development of the economy; to lay emphasis on strengthening the study of technology in production, the selection of correct technology and the rational formation of a technological structure; (.....) to ensure progressive development in basic studies on a steady basis, and to regard mastering absorbing and digesting achievements in foreign science and technology as an important means for developing our country's science and technology. The core of this policy is that science and technology should first and foremost promote the development of the national economy."

The relationship between the modernization of the Science and Technology sector and the acquisition of foreign technology was also the subject of comments, again emphasizing the necessity of a solid domestic base and capacity:⁴⁰

"(.....) In learning from foreign countries we should not weaken or slacken our scientific and technological research at home. When we import foreign technology, we will be unable to truly absorb and digest it if we do not have our own scientific and technological research to match it".

The appreciation of the importance of the link between a domestic S&T capacity, the satisfactory management of the industrial units which were to make use of the imported technology, and real capacity to effectively assimilate that technology, was instrumental in initiating the revision and updating of domestic S&T capacity. That this is the case is suggested by the recurring emphasis on the proper integration and utilization of imported technology in a large number of statements. By the same token this recognition is important in explaining the change in approach to the acquisition of foreign technology. The emphasis on solving problems related to the "digestion" of foreign technology and know-how is illustrated by the following analysis:⁴¹

"(.....) We cannot produce good economic results if we just enthusiastically engage in importing technology without paying attention to digesting it. This is a problem that has not yet been solved well; it merits our attention. (....);... we must take foreign technology as the starting point for developing and creating new things and catch up with and surpass advanced world standards. This is work that involves grafting one twig onto another(..). In importing a technology, we must first select the best factories for using it, that is, those factories with relatively good production conditions and relatively high standards of technology and organizational management, that have the capacity to digest and absorb advanced technology(..). Improper choices of factories was a major cause of previous 'indigestion', in certain technology imports."

The importance of not only acquiring the adequate type of technology and technological know-how but also of assuring its effective integration in the domestic system - assuming the financial capability to do so - is underscored by the following passage:⁴²

"if we fail to make efforts to develop imported advanced technology, 'aging' will take place with the passage of time, and it will turn into backward technology. (..). The reasons why some countries have been successful in importing technology is not just that they have paid relatively economic prices for importing technology within a relatively short period; more important, it is that they have not shrunk from using a lot of money and manpower on digesting and absorbing such technology and on striving to develop it and create new things. Japan spends several times as much on digesting and absorbing imported technology as she does on importing it. This shows that the Japanese place stress on digesting and absorbing imported technology. (..). Placing the emphasis in importing technology on digesting it should become an important guiding principle in our technology import work."

A series of guidelines made public in early 1979 represent the expression of an increased awareness at government level, of the necessity to scrutinize more closely the parameters for the country's approach to the acquisition of foreign technology.⁴³ In technology-related terms, they essentially underscored the absolute necessity of ensuring that when technology was acquired, there existed the realistic possibility of its being assimilated, integrated and grafted onto the domestic base, thereby becoming a productive element in the PRC's domestic industrial and economic structure. They also stressed the inappropriateness of the "turn-key" plant approach of the foregoing years, stating that the purchase of complete plants had very limited value in terms of the efficient transfer of technology since most of the technology was "embodied" and thus virtually impossible to "extract" and use for subsequent "transposition".⁴⁴ The lack of effectiveness of this method was also discussed in another analysis which stated that of the total amount of funds earmarked and spent on the acquisition of

technology in 1978 (approximately US \$ 6.9 billion) only as little as 2% had actually bought "technology" in the proper sense of the term.⁴⁵ If the somewhat worn metaphor of the "chicken" and the "egg" is applied to the PRC's technology acquisition and its potential benefits, the change since 1979, in terms of the type of technology considered appropriate and the methods of acquiring it, is adequately described by stating that the PRC shifted its attention from the "egg" and instead started considering the "chicken".

The PRC's revision of its approach to both the role and conduct of its foreign economic relations and the acquisition of foreign technology, to a considerable extent, relates to a change in the role played by ideology. It should be remembered that the position of economic and technological development in the PRC's overall development has largely been defined by ideological imperatives. The rise to power of a group of leaders who, in terms of the views they hold - within a sinified Marxist-Leninist perspective - regarding societal development, can be viewed as relatively "moderate" or "pragmatic", has by no means removed the salience of ideology. Although the stance of the post-1978 PRC leadership indicates a relatively more open attitude to alternative approaches, in terms of proposing solutions to a number of important problems, the legitimacy of any particular policy is still a function of "correct" ideological orientation.

Reaching back a few years, the capital importance of ideology and the pivotal role attributed to ideological rectitude where essentially "neutral" or "technical" issues were concerned, is best illustrated by the following statement from 1976:⁴⁶

"A socialist plant is a department of material production, but its task is definitely not for purely carrying out production properly, for its most fundamental function is to become a strong battlefield for consolidating the dictatorship of the proletariat."

Statements concerning the same issue since 1978 hardly convey the same point of view.

The fact that professional expertise and the acquisition of foreign technology and know-how were to take precedence over mass initiatives based on ideological criteria and reliance on domestic sources of technological development, was not only stressed in speeches and other statements, but was also implied in the following formulation contained in the 1978 edition of the PRC constitution:⁴⁷

"The State devotes major efforts to developing science, expands scientific research, promotes technical innovation and technical revolution and adopts advanced techniques wherever possible in all departments of the national economy. In scientific and technological work we follow the practice of combining professional contingents with the masses, and combining learning from others with our own creative efforts."

As far as the PRC's economic development was concerned, it had become clear by 1979 that, instead of attempting an overall transformation and general upgrading of the economy, it was necessary to focus on a number of specific sectors. These so-called "weak links" were singled out as recipients for capital investment and were to receive special attention with regard to technological modernization. Viewed from a "macro" perspective, the order of priority of sectors in the economy was, in 1979, given as agriculture, light industry and heavy industry.⁴⁸ The economy was to develop according to the guidelines of "proportionate development" which implied that efforts were to be made to prevent overemphasis on any particular sector thereby staving off inevitable inefficiency and imbalances which were at the root of a slow overall development rate.

In terms of the acquisition of foreign technology, this altered approach began to leave its marks relatively rapidly. Apart from the recognition that the previous approach, and especially the shopping spree of 1978, was beyond the country's financial means, the retrenchment of 1979 brought about a rather more sober view of the results expected from advanced technology and the potential of S&T development in terms of the generation of economic growth. Foreign technology was still high on the list of necessary elements for economic modernization, but the recognition, by 1979, that deficiencies and shortcomings in the domestic base diminished the rate of assimilation and thereby curtailed beneficial effects brought about a scaled-down and more specified approach to technology acquisition.

The post-1979 approach to technology acquisition, then, has been based on a novel and definitely more realistic assessment of the limitations of the domestic economy and the capacities of the domestic S&T sector. Faced with tangible limitations in investment capital and foreign, hard currency, the PRC altered its previous position and gave priority to the acquisition of "key" technology requiring lower investments. The broadening of the means of acquisition ranging from the use of credit to the joint venture reflected the need for combining the necessary with the possible, and was brought about by the same financial and structural constraints.⁴⁹

V.3 The Political System

A central question arises with respect to the position of policies in PRC politics. Is a policy to be considered as something in its own right or does it fulfill other functions distinct from its "problem-solving" properties? If the latter be true, is it the case invariably or at certain specific times only? Are the actual options, the mode of implementation and the results of specific action taken as part of a policy, under certain circumstances merely of secondary importance? As a projection of these questions, one can ask whether a policy moves on what could be described as an "ends-means" scale. When, or under what circumstances, does a policy change from being an "end", i.e., the procedures and process of dealing with one or a number of "problems", to becoming a "means" to be used in the pursuit of power?

This section will attempt to outline some of the aspects of the system which relate to these questions. In order to do this, a review will be made of some of the core "assumptions" and "modes of behavior" which largely constitute the rationale of political activity in the PRC, and which thus affect many aspects of the system. In addition, some of the factional traits of the system will be outlined and the use of the media as a vehicle for "rhetorical" and "formal" policy statements will be illustrated.

As was pointed out in the introductory chapter, disagreement has existed, and may still exist to some degree, among analysts and scholars concerning the extent to which PRC politics, including policy formulation and implementation, are to be viewed in terms of people or of institutions. In the context of this disagreement, one particular opinion held that the PRC political system functioned on the basis of a broad set of generally accepted ideological values and norms, while another view contended that this was not the case but rather that the activity within the system essentially reflected the actions and behavior of factions in strife. Yet another opinion maintained that until the advent of the "Cultural Revolution", the PRC political system functioned as a mix of the two, influence and power being distributed between institutions under the influence of personalized political tendencies. At present, it appears to be fairly well accepted that, with the passing of the militant phase of the "Cultural Revolution", the succession struggle, i.e., the struggle for power after Mao Zedong's disappearance from the scene, became the dominant element in PRC politics. It has also become generally recognized (chiefly on the basis of the unbridled struggle for power and influence among a number of

competing factions and coalitions between 1973-1978) that factions constitute the working units of the PRC political system.

Over the past decade, analysts of the PRC political scene have used this basic unit, labelling it variously "generations", "groupings", "informal clusters", "functional opinion groups" and "factions". This recognition of factions as the working unit for the analysis of political activity and behavior in the PRC system was basically brought about by observations of the PRC military high-command. These observations suggested that this pivotal group was not a homogeneous entity, but rather a divided body, the division of which followed the lines of the various field armies, thereby showing the high-command to be a factionalized entity.⁵⁰ And although there exist differences in opinion as to the exact lines of division, the duration and possible combinations of alliances, it is nevertheless clear that the same type of criteria as those used for the analysis of the military were applicable to the behavior of the PRC political elite in a broader sense. Besides Whitson and Nathan, a host of other observers of the PRC political scene have adopted the factional viewpoint. Among others, Domes has opted for the classification of factions on the basis of institutional and career associations, whereas scholars like Lieberthal and Oksenberg have followed the lines of existing differences in attitudes towards modernization.⁵¹

The activities and orientations of the various factions, groupings or coalitions - in particular with respect to the 1973-1978 succession struggle - appear to have been governed essentially by questions regarding the extent and form of modernization, the "proper" relation between foreign inputs and domestic elements, and their own positions of influence in connection to these issues. As befits the system, differences of opinion on these questions have been pitted against each other, voiced in terms of ideology, the discussion of specific policies and their actual results not taking a particularly salient position.

In this context, Pye has suggested that the Chinese political elite displays what amounts to a persistent attitude of denying the existence of politics in public, systematically refusing to analyze openly the workings of their own political process:⁵²

"The Chinese, whether Confucianists or Communists, have persistently believed that government should be guided only by ethical imperatives and ideological prescriptions, never by the dynamics of political con-

tention. Indeed, one of the most distinctive characteristics of the Chinese has been their uncompromizing denial of legitimacy to the clash of power and values, of men and opinions, which nearly all other people accept as the normal basis for public life. In their escape from politics, most Chinese have steadfastly tried to idealize government - in the past by calling for a rule of benevolence and justice, and more recently by extolling the need for everyone to follow "correct solutions" and the collective leadership of the party".

And although the Chinese obviously have acknowledged conflicts between organized political forces, such as attempts to establish a new dynasty in ancient China, or the struggle between revolutionary and conservative groupings in revolutionary China, Pye argues it is since the advent of the PRC that politics have been more readily recognized as being essentially a matter of power.⁵³ The process of this recognition, in public, of the factual objectives of politics, has seen the description of politics couched in terms of "contradictions" and "class struggle" or conflict between elements of different "categories" and "groups" or the "struggle between two lines".

The reluctance of the political elite to analyze or provide the outsider with an insight into the workings of the political process has in fact gone hand in hand with the suggestion (if not openly stated at least clearly preferred) that outsiders also "play the game". Zhou Enlai himself stressed that there should exist a difference between "nei" and "wai"; i.e., "inside" and "outside", and strongly suggested that such a distinction was indeed made by the leadership.⁵⁴ In this particular regard, it has been suggested that although the PRC leadership in the post-Mao era has become somewhat more open in discussing both government and CCP activities, the very search and drive for efficient and rapid modernization since 1978, in fact, has rendered suspect the implication that behind decision-making and implementation there are the influences of a distinctly factional political process.⁵⁵ The essential traits of the factional political system in the PRC are shaped by a number of factors such as the fundamental, perceived necessity of outwardly displayed consensus among the members of the elite, a desire for conformity, the necessity of denying contention and latent disagreement, and the conviction among the principal actors in the system that security and benefit can only be derived from special particularistic, clientelist relationships. By their very nature, these latter relationship constitute the growing ground for factions.⁵⁶ In this respect, it is interesting to note that although the PRC propaganda and media apparatus has since 1977-1978 stressed repeatedly and strongly that an end should be put to "divisions" and to factionalism, what insight we have into developments

since 1978 indicates that cadres at virtually all levels of the system have been doing exactly the opposite; that is, cultivating existing or renewing old personal ties within the basic networks of the system. As an illustration, the effects of factional considerations have become especially salient where they have affected relations among and between leadership and officials at the different levels of the CCP and state bureaucratic apparatus. These considerations took on a particular importance with the return of the so-called "rehabilitated cadres" who were confronted with the by then well-entrenched positions of the "Cultural Revolution" cadres.

It would seem that although there exists a link between factions and generational, geographical or even institutional "roots", it is nevertheless difficult to pinpoint the exact and tangible relations between these background factors and the factions as operational units. It should be kept in mind that it is difficult to argue for the existence of a strict resemblance between the role of factions in the PRC system and the role of interest groups or similar actors as we know them in Western political system. It has, on the contrary, been submitted that the principal base for the constitution of a faction - its foundation - in the PRC system consists of groupings of officials, cadres, whose common bond is a personal relation based on the enhancement of personal and career security and in mutual benefit through mutual trust and loyalty.⁵⁷

The pursuit of these goals, which also concern the attainment of influence and the obstruction of perceived opponents, takes place at all levels of the system; local, county, provincial and state. The bonding agent of the networks constituting factions which allows for the functioning of the system as a whole, is the element of "guanxi", which has been described as follows:⁵⁸

"highly particularistic sentiments associated with personal ties in Chinese culture, (.....) the intense bonds of acquaintanceship and mutual belonging that give vivid context to the networks of personal associations in Chinese culture, (....)."

Another description states:⁵⁹

"(....) a relationship or interconnection. A sense of loyalty, mutual obligation, and (..) shared vulnerability bound clusters of people together. A high-level official in Beijing was, in effect, the patron - the family head - of many clients, who in turn were patrons of lower level clients."

Thus, factions in the PRC political system (as opposed to closely-knit cliques or large-scale mass parties found in other political systems) are based essen-

tially on personal relationships between individuals who, within the specific context of a vertical power stratification or hierarchy, operate networks which upwardly pursue the transfer of support for leaders and which downwardly seek out potential followers to ensure a viable power base.

The above traits are, in addition, responsible for a certain "vagueness" in that factions tend to be dormant. In a general sense, factions are activated by rendering operative the relatively loosely defined networks of associations referred to above. Relations within factions as well as boundaries between factions are vague rather than explicit. This trait is reinforced by the fact that factions as well as the networks of associations which constitute them, can both be called to life or expanded under different conditions, at different times and for different purposes. This makes for a structure where the very causes of adhesion and cohesion can and do become the causes of breakdown.⁶⁰ The fact that this tendency permits a large degree of flexibility in terms of adherences to different factions, meaning that a member of any particular faction who may have been in a "winning" position at one time can find himself in a "losing" position at some future time, has produced the noticeable but rarely highlighted effect that extreme sanctions have not been applied within the political elite in the PRC system.⁶¹ Contrary to the Soviet practice, until the 1950's, of purging by means of the physical elimination of the "loser", the CCP has practically never resorted to this type of practice, apparently preferring to transform some of the members of the "losing" faction into "non-persons" or to stress rehabilitation by means of "re-education". The net result of this approach is the somewhat confusing but well-established fact that purged individuals can be restored, either to their old position or to a new one. One of the most visible examples is of course Deng Xiaoping. Individuals can be found at virtually every level of the system who have experienced "losing" and who therefore wait for the opportunity of "getting even" and of re-establishing positions of security and influence; an example being the so-called "rehabilitated cadres" who can be found today in every stratum of the PRC system.⁶²

Leaders or potential leaders of factions or groupings do not actively have to attempt to establish constituent networks or followers, thereby establishing their power base. These networks will tend to link themselves to potentially successful or already established successful leaders at the center who can be expected to satisfy the needs of these followers. Should such a leader not be able to do so, he will lose his base of support.⁶³ To the extent to which this

verifiable, this is borne out by the fate of, for example, Hua Guofeng.

The networks underlying factions are thus chiefly latent as long as nothing disturbs the "normal" progression of routines or the power distribution of the moment, until for some reason the elite becomes divided. Factions then become operative, in time forming coalitions. The coalition of these groupings into two poles, besides being the PRC propaganda "analysis" of things, appears to occur at times, be it only at the culmination of an extreme crisis. When the ideological posturing which occurs in the context of factional struggle has been pushed to the extent that the remaining lines of distinction are blurred, which could occur if the issue at stake was sufficiently "important", options are successively reduced, resulting in a temporary bi-polar situation. What would be considered sufficiently "important" for letting the contention take on these proportions, is difficult to pinpoint, but the questioning of the tenets of the system, the perceived attempt to achieve control over a number of the important "centers of power" within the system by one of the groupings,⁶⁴ or a succession struggle may be possible issues.

Although there exist a variety of ways and instruments to mobilize factions in the PRC system, there also appears to exist what amounts to an unwritten rule that no covert means be used in the process of mobilization.⁶⁵ As a consequence, the propaganda apparatus and the media (one of the "centers of power" alluded to above) are generally used to channel the necessary "cues" regarding the intentions of the leaders down to the factional networks in order to activate them. The most common manner of achieving these goals is by floating a "trial balloon" in the media and observing whether or not it is "picked up". The triggering signal for mobilization can thus be a slogan such as the one used at the height of the decisive struggle within the post-Mao leadership coalition a few years ago, which extolled everyone to "seek truth from facts". Such a signal is used by the initiators to determine who is repeating or "picking up" the slogan and who is overtly refusing to follow suite. In the same manner, use is made to a varying extent of more or less esoteric declarations regarding the nature of "good" and "evil" or of historical parallels - as was the case with the "Pi-Gong" (anti-Confucius) campaign.⁶⁶ Finally, an "indirect-direct" code-word attack can be launched on an opposing faction testing that faction's strength by measuring the strength of the support for the newly launched attack.

Commenting on the wide-spread use of the latter method at the provincial level,

after 1976 in order to "weed out" followers of the "Gang of Four", Pye states:⁶⁷

"The issue at stake was whether lesser cadres would quickly join the attack and thereby swell the ranks of the attackers or defend the accused, whose real names everyone knew, by denying that they willfully championed the Gang. Worst of all, would they try to remain silent and uncommitted until it became clear who would prevail in the future?"

Regarding the use of "nick-names" or cryptical references in order to designate factional leaders under "indirect-direct" attack, he adds that:⁶⁸

"Everyone in China must have known the identity of 'China's Krutshchev' and 'that Party person in authority taking the capitalist road' long before he was revealed to have been 'that renegade, hidden traitor, and scab, Liu Shaoqi'. Similarly, during the three years in which the Chinese press reviled 'that political swindler like Liu Shaoqi and his ilk' everyone knew that the objects of the attack were in fact first Chen Boda and then Lin Biao. Thus during the campaigns against the followers of the Gang of Four, the press in the provinces attacked a long list of local leaders by code names. For example, in Jiangji, it was 'that rather influential person'; in Hebei, there was 'that bad man of Paoting Prefecture'; in Liaoning, it was 'that sworn follower' and 'his sinister henchman' (who was none other than Mao's nephew); in Guangdong, it was 'a major leading figure' and 'another leading figure'; in Suzhou, 'the tiger'; in Hunan, 'the scoundrel', 'the drummer' and the 'dog's head staff officer'(.)."

The reasons for this type of "indirect-direct" approach and the concomitant use of oblique allusions appear to be several; (a) the approach allows for a relatively low level of vulnerability for those who initiate the mobilization and direction of the attack; (b) it constitutes a relatively "subtle" way of challenging the face-saving consensus so crucial to the elite; (c) the approach gives an indication of the guidelines for future or related "debates" and rhetoric.⁶⁹

With reference to the topic of the present study, it should be noted that the issue which is raised as a means of testing the adherence to and cohesion of a given faction or coalition; i.e., its strength at the base, can under certain circumstances be directly related to policy options. The use in such a case of symbols and of "oblique" references as well as the extreme ideological posturing that can be observed, constitute a "convenient" way of expressing and justifying what will be read as indications of policy preference within the elite and lower down in the networks.⁷⁰ At their initial stage, these indications can, to a certain extent, be interpreted as "rhetorical policy making" and later, if and when the victorious coalition of factions decides that it still wishes to adopt that particular option after victory, as formal policy statements. At the initial "sounding out" stage, however, the extreme ideolo-

gical posturing and the policy-related rhetoric should be viewed as means for delimiting the options for a power base and the possible subsequent groupings of power bases in a working coalition of factions.

Below, an overview will be given by way of illustration, of some of the statements that were made (they have been euphemistically referred to as "debates") prior to the demise of the "Gang of Four" and during the period of transition from the "Great Leap Outward" to "readjustment". The statements concern the role and value of "self-reliance", the nature of the PRC's economic relations with the outside world and, with regard to the principle of "self-reliance", the use and role of foreign technology.

In reference to the "indirect-direct" attack; i.e., attacking a faction or coalition by criticizing its leading representatives, all those who were singled out in the media during the various campaigns and other propaganda attacks during the 1973-1976 period (be it Lin Biao, Liu Shaoqi, Zhou Enlai or Deng Xiaoping) were to a varying extent branded as proponents of a "slavish comprador philosophy". They were invariably accused of believing that the "moon was rounder in foreign countries" and of uncritically admiring or even worshipping things foreign.

Although it is probably true that no particular faction within the PRC's political spectrum advocated a total sealing-off of the PRC from the outside world, it is nevertheless rather obvious that a number of factions did not readily accept the growing volume of the country's foreign trade, the expansion of its foreign economic relations in a general sense, and the increased link-up with the international economic system that this development represented. This latter growing linkage was especially perceived as a negative development and was thus a bone of contention. Stating the case of those who opposed the development since 1972, one source commented that:⁷¹

"Our difference with Deng Xiaoping is definitely not a difference on whether or not it is necessary to import this or that kind of technology and equipment, but it is a major question of the struggle between the two classes, the two roads and the two lines over whether or not it is necessary to hold fast to the policy of maintaining independence, keeping the initiative in our hands and relying on our own efforts."

Significantly, while emphatically denying the existence of any controversy regarding a "sub"-issue, the statement nevertheless implied that controversy did exist, that it related to core issues, that the resolution of the conflict

of course demanded a correct ideological approach in the process reverting to the dialectic interpretation of a struggle between "two lines".

The point of departure for the self-reliance-related "debates", "analyses" and various lines of reasoning was the speech by Deng Xiaoping shortly after his reappearance on the political scene to the General Assembly of the United Nations in April 1974. While reformulating or repeating various sets of standard slogans and formulas Deng nevertheless introduced a novel element when he stated that:⁷²

"Self-reliance in no way means 'self-seclusion' and rejection of foreign aid. We have always considered it beneficial and necessary for the development of the national economy that countries should carry on economic and technical exchanges on the basis of respect for state sovereignty, equality and mutual benefit, and the exchange of needed goods to make up for each other's deficiencies."

The significance of this clarification (which obviously had clear ideological connotations with respect to the domestic scene) was underscored when a few months later Li Qiang, minister of foreign trade, declared that: "it is necessary for China's foreign trade to develop in steady steps".⁷³

The reaction from those less inclined to support the course outlined in these two statements, which are probably best viewed as attempts to give an aura of legitimacy and permanence to the already initiated change in the country's conduct of its foreign economic relations, was not long in coming. In September of the same year, an article published by one of the opposing factions' most outspoken representatives in the propaganda apparatus, reiterating the basic ideological "platform" for opposition:⁷⁴

"we have firm faith in the strength of the masses of the people, and we are convinced that by maintaining independence, keeping the initiative in our own hands and relying on our own efforts, we shall be able to rapidly develop our science and technology and change China's outlook".

The article also denounced plots to "worship things foreign and sell out the country" and stated that "to view foreigners as a hundred percent perfect and ourselves as totally incompetent, is a spiritual schackle".⁷⁵

Apparently little sensitive to these signs of mounting opposition, and following the patterns of growing ideological posturing members of the grouping in favor of the changes in approach formulated increasingly concrete statements regarding the "proper" way of dealing with economic development and the

role of the PRC's foreign economic relations and the use of foreign technology. Published in 1975, one of a series of three documents drafted under the supervision of Deng Xiaoping outlining the most important means of accelerating the PRC's industrial and economic development, bluntly pointed out that:⁷⁶

"In catching up with industrially advanced countries, the industrially backward countries invariably rely on adaptation of the most advanced technology".

In addition, these documents underlined how important it was for the PRC to acquire "advanced techniques from abroad in a planned and selective manner" and to "learn with open-mindedness all advanced and good things from foreign countries".⁷⁷ Specifying the "correct" approach to the attainment of these goals, it was stated that the PRC should "export as much as possible" and that the industrial sector should "agressively increase production of items that can be exported". Indicating the potential extent of the change in approach, it was suggested that the PRC could benefit from cooperation with foreign firms particularly in the field of coal and oil exploitation. This type of cooperation would be based on a pay-back arrangement whereby the PRC intended to finance imported technology by means of a payment "in natura"; i.e., a share of the production.

These indications of the "proper" approach to the conduct of foreign economic relations were followed by similar recommendations contained in the plan for the development of the country's Science and Technology sector released in the Fall of 1975.⁷⁸ This document discussed the merits of expanded contacts with the scientific community outside the PRC, of increased acquisition abroad of scientific and technical information, generally following the slogan guideline of "learning the good points from foreign countries".

The recurring message in these statements was obviously anathema to those who opposed the present policy and any further change in approach including a significant reformulation of the concept of self-reliance. In what clearly was a rallying call for a counter-attack, an article published in August 1975 entitled "Self-reliance is a question of line", argued that:⁷⁹

"For more than the last two decades, the struggle centering on adhering to or opposing the line of independence and self-reliance has been very sharp. Out of their sinister efforts to subvert the dictatorship of the proletariat and restore capitalism, Liu Shao-chi and Lin Piao frenziedly hated and opposed the line. They vainly tried to sell out state sovereignty and once again bring 'wolves' into our country, frantically advocating servility to things foreign and the doctrine of trailing behind at a snail's pace... To achieve real success by following the

spirit of independence and self-reliance, it is necessary to continuously deepen criticism of servility to things foreign,..... We should give full prominence to the spirit of independence and self-reliance.... It is wrong to imagine that foreign technology is flawless."

Additional articles conveyed the same forceful rejection of an altered approach. In an "indirect-direct" attack on the leader aimed at undermining the power base of the grouping, Deng Xiaoping was accused of possibly the worst of all intentions; i.e., of planning to bring China under the control of foreign powers once again:⁸⁰

"Teng Hsiao-p'ing's words and deeds show that he does not fundamentally take the stand of the Chinese people and really care for 'modernization in four fields' but endeavors to guide China to fit in with the interests of imperialism and serve as their comprador. The purpose of his 'bringing in' advanced technology from abroad is not for 'upgrading' the building of socialism but for sabotaging and disintegrating the socialist economy and restoring capitalism."

By the Spring of 1976 Zhou Enlai had just passed away and Mao Zedong was obviously not in good health. Deng Xiaoping (himself the target of the "Pi-Deng" campaign, engineered by those opposed to his views) had once again been purged from public power, having been branded "the biggest unrepentant capitalist roader" and accused of advocating a "major policy" described as "a policy of out-and-out capitulation and national betrayal".⁸¹

After the demise of the "Gang of Four" and the subsequent return to public power of Deng Xiaoping in 1977, the new dominant grouping initiated an increasingly emphatic drive in which it again stressed most of the themes voiced during the preceding years. The repetition of the slogans and "guidelines" was accompanied by a vilification campaign against the defeated grouping and, in a characteristic, parallel development, the level of the objectives to be attained under the new leadership's guidance was gradually but significantly raised. The objectives at this point were no longer simply to modernize the country, but had taken on the proportion of achieving parity with the industrialized nations by the end of the century. This change of proportions in part explains the more than ambitious aims of the Ten Year Plan that was formulated and reformulated between 1976 and 1978.

Thus, statements in 1977 and after by members of the new leadership as well as articles in the media stressed that if the "Four Modernizations" program was to become a reality, the PRC's foreign economic relations, and especially its use of foreign technology, would have to be expanded to full advantage.

At this point took place what can best be qualified as a reformulation of the concept of self-reliance. The term was increasingly used to signify a goal rather than a means. Thus, when at times it seemed as if some of the state-ments merely paid lip-service to the principle of self-reliance, giving the impression of rejecting it, the concept had in fact been re-interpreted from being a means to being a long-term goal.

When Mao Zedong's article "On the Ten Major Relationships" was published for the first time after his death (in fact, it dated back to 1956), it read:⁸²

"Our policy is to learn from the strong points of all nations and countries - learn all that is genuinely good in the political, economic, scientific and technological fields and in literature and art."

Further, rather typically the representatives of the defeated grouping, the "Gang of Four", were denounced in virtually every article and publication for having organized and planned moves to obstruct the country's development in general, and its foreign economic relations in particular.⁸³ These articles also made the intentions and objectives of the new policies known:⁸⁴

"We are using exports to obtain needed materials in return and to import needed equipment and technology in an effort to implement the principles of 'making foreign things serve China' and 'combine learning with creation'."

It was stressed that the objective of the new official approach was to enhance the PRC's "ability to build socialism with independence, initiative, and self-reliance and accelerate the socialist construction".⁸⁵ The "Gang of Four" and the reactionary thinking they represented had been beaten back. A "victory" had been won against those whose thinking and actions had "gone against the tide of history", who had preached the virtues of "isolationism" and "obstructionism", who "had refused to see the necessity of expanding the country's economic relations with other countries".⁸⁶

Statements and articles establishing the case of expanded trade relations followed one another throughout 1977, increasingly emphasizing the need for the PRC not only to expand trade but also to adopt a far-sighted and flexible approach to the acquisition of technology. It is worth noting that at that time technology was already being equated with the acquisition not only of hardware but also of foreign management techniques. One article published during the Summer of 1977, again with a reference to Mao's "On the Ten Major Relationships", underlined the ideological rectitude of what was being pursued:⁸⁷

"Every nation and country as it develops is bound to absorb and make use of, to a greater or lesser degree, scientific and technological achievements of other nations and countries (....) Presumptuous conceit and blind rejection of all things foreign are anti-Marxist and unscientific. (...) We dare to put forward the slogan of learning from foreign countries precisely because we have full confidence in our own country."

In the Fall of the same year, another article advocated an increase in the importation of advanced techniques and technology to be paid for through increased exports of raw materials such as coal and oil, thus in fact repeating Deng's propositions of 1975. This same article, probably for the first time, argued strongly in favor of the use of credit explicitly mentioning the use of deferred payments and payment in installments.⁸⁸

The shift in the value attributed to the principle of self-reliance, touched upon above, no longer as a means but rather a long-term objective, was confirmed by the publication of the following statement:⁸⁹

"Rather than negating the principle of self-reliance, learning from foreign countries' fine experience and emulating other people's good points and importing the needed technology and equipment from abroad will strengthen our capability to develop our economy through self-reliance."

Statements made by representatives of the leadership in 1978, all endorsed, explained or justified the policy of broadened foreign economic relations. In his speech at the 5th National People's Congress in February 1978, Hua Guofeng emphasized that "there should be a big increase in foreign trade" and that the PRC should develop a series of "bases ensuring the supply of industrial and mineral products for export".⁹⁰ He was shortly followed by Deng Xiaoping, who said:⁹¹

"A person must learn from the advanced before he can catch up and surpass them. Of course, to raise China's scientific and technological level we must rely on our own efforts, develop our own inventions, and adhere to the policy of independence and self-reliance. But independence does not mean shutting the door on the world, nor does self-reliance mean blind opposition to everything foreign. Science and technology are a kind of wealth created in common by all mankind. (...) It is not just today, when we are scientifically and technically backward, that we need to learn from other countries; after we catch up with the advanced world levels in science and technology, we will still have to learn from the strong points of others. (...) We must actively develop international academic exchanges and step up our friendly contacts with scientific circles of other countries."

At the National Finance and Trade Conference in June 1978, Li Xiannian, having once again criticized those who advocated some type of "self-contained economy",

reaffirmed the PRC's intention of using "up-to-date science and technology to transform, step by step, all the sectors of the national economy". He voiced the country's acceptance of greater specialization and division of labor, as well as the necessity of increasing exports "for more imports of advanced technology and equipment".⁹² Proceeding from the general to the more specific, another member of the top echelon in the leadership, Hu Qiaomu, argued for the merits of going beyond the mere acquisition of technical know-how and equipment stating that:⁹³

"The planned management and other management systems within capitalist factories in the early years have now been developed into a modern, highly efficient planned management and other management systems of the big companies."

Hu further quoted Lenin in support of the view that communists must learn from "the bourgeoisie" and from "first-rate capitalists". He expanded the thesis by stressing that capitalists and their management system work according to "objective laws of economy" and that the capitalists had great "experience in using these laws skillfully".⁹⁴ In addition, a parallel with the use of foreign credit and the acceptance of foreign capital by the USSR in the 1920's was drawn on a number of occasions in order to explain and justify the altered approach in that respect. Lenin was quoted repeatedly with regard to his views that the best means of developing the Soviet economy was to admit foreign capital and to make use of this capital to stimulate the domestic industrial sector. He was further quoted as saying that since science and technology have no class nature:⁹⁵

"without equipment, without machinery obtained from capitalist countries, we cannot do this (To restore the economy and place the Soviet power firmly on its feet) rapidly. And we should not grudge the capitalists a little extra profit if only we can effect this restoration."

In a further effort to drive home the ideological correctness of the more "revolutionary" aspects of the new approach, both Lenin and Stalin were praised for having adopted measures aimed at a rapid development of a socialist economy, measures including the acquisition of foreign capital through loans, the importation of large quantities of machinery and associated equipment, the signing of contracts for foreign technical assistance, the hiring of foreign technicians and experts, and the sending abroad of people for education.⁹⁶ In addition, the excellence of such novel measures as the organization of joint companies and the granting of leases and concessions to foreign partners (specifically for the development of oil exploration and exploitation

and mining) was emphasized, evidently assuming the use of financing from the international monetary market.⁹⁷

The fact that some of these measures, particularly the introduction of Western, "capitalist" management techniques, were creating controversy within the ruling coalition, was highlighted by the following rather cautiously formulated analysis of these management methods and their possible advantages and drawbacks:⁹⁸

"If we learn to apply them (scientific management methods) systematically, they will be conducive to improving our work. However, scientific management was once given the very unpleasant name 'bourgeois control, restriction and repression'. If you learned from foreign technology, you would be accused of 'restoring capitalism'. It is obvious that learning from foreign technology does not harm state sovereignty but is beneficial to socialist construction. But fear of such accusations as 'national betrayal' and 'capitulationism' compelled us to follow the path of a 'gentleman of ancient time'. (.....) We don't care what the Gang of Four labelled them. Practice has proved that the results of introducing things foreign are good and that we have not become 'foreign slaves' because of them. (.....) Practice is the only way to decide whether a name is supported by facts."

Around the same period appeared what could be called "problem solving" statements. These statements surfaced when a number of other factors indicated the existence of a low level of consensus, officially only concerning "details", within the ruling coalition.⁹⁹ The cautious and even somewhat defensive tone of the article quoted above, was also evident in Hua Guofeng's speech to the National People's Congress in 1979. Hua implied that although the PRC's economy was now undergoing readjustment and the country's approach to foreign economic relations was being restructured, there existed no general consensus on these issues. He also indicated, however, that the process of readjustment (despite the lack of consensus, one must assume) was not to affect the overall modernization program in its general aims, nor the flexible and extrovert approach to foreign economic relations and technology acquisition:¹⁰⁰

"Economic exchanges between countries and the import of technology are indispensable major means by which countries develop their economy and technology. (...) We must work hard to learn all that is worthwhile learning from foreign countries, selectively import advanced technology of which we are urgently in need, and not wall our country off from international exchanges."

Of interest in this formal discussion of policy, is the reaffirmation of the intention to pursue a broadening of the PRC's links with the international economic system:¹⁰¹

"Both in the 3-5 year period of economic readjustment and in the subsequent years, we shall be taking energetic steps to develop foreign trade, expand economic cooperation and technical exchange with foreign countries, and employ various appropriate means current in international practice, to absorb funds from abroad."

Specifying the leadership's intentions even further when referring to the PRC's ability to pay for its purchases, Hua enumerated some possible options and requirements:¹⁰²

"if conducted in a rational way, our cooperation with foreign countries in production technology, compensatory trade and joint investment enterprises will promote restructuring, consolidating, and improvement of our enterprises. It would require: organizing vast numbers of technicians and workers to study, assimilate, and master foreign technology."

During this period a number of more technical articles appeared which, besides indicating intentions and possible strategies, also discussed these aspects in a rather more policy-related manner. At the end of 1978 one such article stressed the importance of more flexible methods of acquiring technology.¹⁰³ The article contended that the PRC should seek alternatives to the acquisition of complete plants since that method was expensive as well as incomplete in that it only partially transferred technological knowledge crucial to manufacturing and production. The article stated that there existed a broad spectrum of available options, such as contracting, processing, joint production, licensing arrangements and joint equity ventures.¹⁰⁴

A short while later, the report on the draft of the economic plan sounded the same note in a somewhat more critical way.¹⁰⁵ In essence it stated that the new, restructured approach was sound, but that problems existed to which special attention should be paid. More specifically, a number of readjustments would have to be made with respect to imports, since the importation of technology had not been sufficiently based on "proper investigation and study". Basically listing the same options as those enumerated in the article quoted above, this report stressed the need for increased adaptability of imported technology to domestic infrastructure, and advocated that priority should be given to the acquisition of technology with direct bearing on manufacturing (again at the expense of complete plants) and to projects which could be expected to produce quicker results in terms of exportable output and thus to earn foreign exchange.

Finally, the streamlining of the new approach to foreign economic relations and the acquisition of foreign technology as well as the settling of the struggle for power within the ruling coalition were underscored when it gradually became clear in 1979, that the PRC had adopted a draft law regulating the establishment of joint ventures and that the State Council was proceeding with the drafting of a legal framework for the regulation of foreign investment and the establishment of a series of so-called Special Economic Zones.¹⁰⁶

NOTES TO CHAPTER V

- 1) JETRO (1980); "China Newsletter", NO. 26, p 18.
- 2) JEC (1982); Dernberger p 33.
- 3) Ibid. pp 34-35.
- 4) The "scissors gap" was maintained by the establishment of relatively low state purchasing prices for agricultural produce and relatively high selling prices for industrial products from state-run enterprises. See supra note 1, p 17.
- 5) Ibid. p 17.
- 6) JEC (1978); Kravalis p 794.
- 7) Ibid. p 809.
- 8) Ibid. p 794.
- 9) Ibid. p 811.
- 10) NFAC (1978); "China International Trade: 1977-1978", (ER)78-10721, p 23.
- 11) Ibid. Also see NFAC (1980), "China International Trade", Quarterly Review, Second Quarter 1979 (ER)CIT 80-001, p 26.
- 12) JETRO (1980); "China Newsletter", No. 26, p 18.
- 13) Ibid. p 18.
- 14) Ibid. p 20.
- 15) Ibid. p 19.
- 16) Denny and Surls in "China Business Review", March/April 1977, p 19.
- 17) Ibid. p 19.
- 18) See Jingji Guanli, april 15 1981 for references to this "nick-name". The author wishes to thank Magnus Nordenhake of the RPI for his assistance with the reviewing of the article.
- 19) Volti, in Baum (ed) (1980), pp 179-189 for a discussion of this matter.
- 20) JEC (1982); Simon, p 521.
- 21) Ibid. p 520.
- 22) Ibid. pp 520-521.
- 23) Ibid. p 521.
- 24) Jingji Yanjiu, November 1980, pp 33-37. Also see supranote 18.
- 25) FBIS (PRC), February 27, 1979, N5-N6.
- 26) Ibid. N-5.
- 27) Beijing Review, No. 30, July 27, 1979, pp 9-11, especially p 10.
- 28) For an outline of the Science Conference see: Beijing Review, No. 12, March 24, 1978, p 3.
- 29) These problems were discussed by Deng Xiaoping in his speech at the conference. See supra note 28.
- 30) See: "The Outline National Plan for the Development of S&T, Relevant Po-

- licies and Measures" presented by Fang Yi at the National Science Conference. Beijing Review, No. 14, April 7, 1978, pp 7-ff.
- 31) For a detailed disucssion of the S&T sector and related issues see R.P. Suttmeier, "Science, Technology and China's Drive for Modernization", Stanford, Hoover Institution Press, 1980.
 - 32) JEC (1982); Suttmeier p 494.
 - 33) Ibid.
 - 34) Ibid.
 - 35) JEC (1978); Sigurdson p 490.
 - 36) Ibid.
 - 37) FBIS (PRC), April 21, 1981, K19-K22 (especially K19).
 - 38) Ibid. K19.
 - 39) Ibid. K20. Also see FBIS (PRC), January 13, 1981, L14-L15.
 - 40) FBIS (PRC), January 13, 1981, L15.
 - 41) FBIS (PRC), April 14, 1981, K6.
 - 42) Ibid. K7 and K8. Also see E Baark, "China's Technological Economics" in Asian Survey, Vol. 21, No. 9, September 1981, for a discussion of an important related topic.
 - 43) FBIS (PRC), February 27, 1979, N5.
 - 44) FBIS (PRC), October 10, 1980, L22-L23.
 - 45) Cf. Jingji Guanli, April 15, 1981.
 - 46) As quoted in Volti, "Technology, Politics and Society in China", 1982, p 46.
 - 47) Cf. "The Constitution of the PRC" in Beijing Review, No.11, March 17, 1978.
 - 48) Beijing Review, No. 16, April 20, 1979. Vice Minister Gu Mu on economic construction.
 - 49) Beijing Review, No. 29, July 20, 1979, p 14.
 - 50) Cf. W Whitson, "The Chinese High Command", Preager, New York, 1973.
 - 51) Cf. K Lieberthal, "The Internal Political Scene" in Problems of Communism, May-June 1975 and M Oksenberg & S Goldstein, "The Chinese Political Spectrum" in Problems of Communism, March-April 1974. Also see: Ting Wang, "Trends in China: Leadership realignments" in Problems of Communism, July-August 1977.
 - 52) Pye (1981), p 1.
 - 53) Ibid. p 2.
 - 54) Zhou Enlai voiced this opinion at several meetings with foreigners, ranging from Edgar Snow to Mendes-France.
 - 55) Supra note 52, p 3.
 - 56) Cf. Pye (1981).
 - 57) Cf. the definition of a clientelist tie in Nathan's model. Also see: Oksenberg in China Quarterly, No. 90, 1982 on "backgrounds" and Domes in Problems of Communism, September-October 1974 on "interest groups, etc."

- 58) Pye (1981) p 6.
- 59) Oksenberg in *China Quarterly*, No. 90, 1982, p 167.
- 60) Cf. Nathan's definition in the introductory chapter.
- 61) Ibid.
- 62) Oksenberg in *China Quarterly*, No. 90, 1982, p 168.
- 63) See *supra* notes 60 and 61.
- 64) For an outline of these "centers of power" cf. Oksenberg in *China Quarterly*, No. 90, 1982, p 166.
- 65) Pye (1981) p 8.
- 66) For a discussion of the esoteric nature of communication in Communism see "On Esoteric Communications" in *Studies in Comparative Communism*, Vol. 3, 1970, pp 47-54. For the case of the PRC, see Pye (1978) pp 221-246.
- 67) Pye (1981) p 9.
- 68) Ibid. p 9.
- 69) Cf. Pye (1978), especially pp 226-230.
- 70) Cf. the characteristics and role of ideological posturing as indicated in Nathan's model.
- 71) Part of an attack on Deng Xiaoping by a radical "criticism" writing group. See: *Survey of the PRC Press (SPRCP)*, 25, 1976, p 215.
- 72) *Peking Review*, No. 16, April 19, 1974, p 10. Deng Xiaoping's speech to the United Nations' General Assembly.
- 73) *Foreign Trade*, No. 1, 1974. Li Qiang in this newly published journal on "New Developments in China's Foreign Trade".
- 74) *SPRCM, Magazines*, 74-15, September 20, 1971, pp 1-3. Article by Qing Feng.
- 75) Ibid. Qing Feng was the pseudonym for the collective writing group of the CCP Shanghai Committee.
- 76) *Issues and Studies*, Vol. 13, No. 7, 1977, pp 106-108.
- 77) Ibid.
- 78) *Issues and Studies*, Vol. 13, No. 9, 1977, pp 67-68.
- 79) *Peking Review*, No. 32, August 8, 1975, pp 14 and 23.
- 80) *SPRCP*, 25, 1976, p 220.
- 81) *Peking Review*, No. 35, August 27, 1976, p 8.
- 82) *Peking Review*, No. 1, January 1977, p 23.
- 83) Cf. Ibid. pp 31-ff.
- 84) Cf. *FBIS, Daily Report PRC*, January 14, 1977, E1-E8.
- 85) Cf. Ibid.
- 86) *Peking Review*, No. 9, February 25, 1977, pp 16-18.
- 87) *Peking Review*, No. 28, July 8, 1977, pp 9-11.
- 88) *Peking Review*, No. 42, October 14, 1977, pp 5-13 especially p 11.
- 89) *FBIS, Daily Report, PRC*, November 3, 1977, E3-E5.

- 90) Peking Review, No. 10, March 10, 1978, p 24.
- 91) Peking Review, No. 12, March 24, 1978, p 12.
- 92) Peking Review, No. 30, July 28, 1978, p 16.
- 93) FBIS, Daily Report, PRC, October 11, 1978, E4.
- 94) Ibid.
- 95) Peking Review, No. 41, October 13, 1978.
- 96) FBIS, Daily Report, PRC, August 25, 1978, E4-E7.
- 97) Ibid.
- 98) FBIS, Daily Report, PRC, August 28, 1978, E1-E5.
- 99) Cf. The proceeding of the Third Plenum in December 1978.
- 100) Peking Review, No. 27, July 6, 1979. Hua Guofeng's report to the National People's Congress. The undertone of internal lack of consensus becomes evident upon reading the speech. It was underscored by the launching of the so-called "eight character slogan": "Readjustment, reform, rectification and rising standards".
- 101) Ibid.
- 102) Ibid.
- 103) FBIS, Daily Report, PRC, December 8, 1978, E25-E27.
- 104) Ibid.
- 105) FBIS, Daily Report, PRC, July 2, 1979, L14, L22-L24.
- 106) Cf. for instance the Asian Wall Street Journal, Far Eastern Economic Review and the China Business Review, covering the period between June and December 1979.

SUMMARY REMARKS

The present section will be devoted to an outline of some of the conclusions regarding the evolution of the PRC's approach to foreign economic relations and the reliance on the acquisition of foreign technology.

One important conclusion should be put forward at the outset. In order to understand what is actually happening in terms of policy, besides studying the "blueprints" and "norms" it is of capital importance to observe the actual measures that are being taken. At the risk of putting forward a truism, it has to be clearly stated that only the study of implemented policy, of the results, will enable us to learn something about what is in fact being done and achieved. Statements of intent, formal policy statements and rhetoric, will not be of much help in that particular respect, but may serve to provide information about other important aspects of the policy-making process.

Having clarified this point, two other broadly formulated conclusions can be put forward regarding the relationship between the main actors in the PRC system and policy. Clearly, interplay between the two exists in the sense that (a) policy and the issues which form the contents of policies can influence the positions of the principal actors in the system and thus influence the possible formations of coalitions or groupings; (b) the result of the struggles between principal coalitions or groupings can have consequences which are, if not always predictable, at least observable in terms of change in approach or change in over-all policy.

The evolution of the PRC's foreign economic relations and the conduct of its acquisition of foreign technology suggest the following. The measures decided upon during the first years of the 1970's by those in the leadership who advocated a planned and orderly approach to the development of the country's economy resulted in concrete directives concerning the policy. These directives were followed, resulting in an observable change in implemented policy in terms of an increase in the overall volume of trade and the stepped-up importation of engineering products. Available statistical data clearly indicate that this development occurred at the outset chiefly by means of the acquisition of so-called "turn-key" plants. Indications are that between 1972 and 1974 these new directives and their actual implementation were not noticeably challenged in any manner by any actor in the system. In other words, no tendencies towards deliberate obstructionism can be traced.

However, in 1974 and certainly by 1975, the policy had become the focal point of a growing political controversy. As was demonstrated in the central chapter, the PRC experienced severe deficits in its balance of trade, particularly in 1974. These deficits were brought about to a large extent by the poor performance of the agricultural sector. The resulting, forced purchases of grain, coming on top of other import commitments, were thus to a large extent responsible for the deficit. If one applies a "technical" explanation to this development, one is tempted to argue that the reaction of the "opposition" was a rather normal one, based on dissatisfaction with "policy mismanagement". However, there is no traceable evidence of any criticism of the policy on the basis of "hard" facts; i.e., figures, commodity composition or similar elements. As is shown by the overview of some of the "debates" in 1974-1976, criticism was not actually voiced against the deficit for example, but rather against the general idea of expanding the country's foreign economic relations and the increased acquisition of foreign technology. The "technical" explanation thus partially misses the point. While shaping its criticism as a "debate" and as "spontaneous" campaigns, both of which measures stressed the absolute necessity of faithfully adhering to the ideologically important principle of "self-reliance", the "opposition" rapidly elevated a controversy which seemingly surrounded a matter of policy to the level of a struggle over core ideological values.

The contention here is that this move - the transformation of a "simple" matter of policy to that of a major and overriding political issue - was not actually aimed at altering the PRC's stance on foreign economic relations and technology acquisition, but rather at eliminating the most outspoken proponent of the policy, Deng Xiaoping, for an entirely different set of reasons. The virtual reduction of all political debate to the theme of "self-reliance" and the increasing ideological posturing around it can be taken as clear signs that another, more important factor, was taking precedence over everything else: the struggle for successional power. The factional struggle which erupted in 1974-1975 and the jockeying for positions of influence, transformed a policy matter into a "means" in an unbridled struggle for power.

Statistical data tend to show that since its initiation, the policy had developed what could be called "staying power". In other words, while discord ruled politics at the top, actual implementation of the policy continued for some time through "built-in" inertia. The fact that the policy was implemented

on a routine basis tends to indicate that, by mid-1975 at least, the matter had not yet taken on any significant proportions at the lower levels of the system. In this context, it should be recalled that the "elevation" of a policy to the level of core political values and its transformation into a "means" in a factional struggle, does not indicate anything about the importance actually accorded to the objectives of the policy. Rather, essential differences of opinion appear to have existed in this particular case. However, once a policy matter is elevated to the ideological level, the merits or disadvantages of its objectives simply do not appear to be the criteria of reference used in such an evaluation. Thus any reaction at the lower levels is subject to assessment regarding the ideological desirability and rectitude of the policy, made at the top.

The concentration of the various factions into fewer groupings or coalitions in the process of the power struggle, in this particular case resulted in a very small number of such coalitions. Each of these coalitions or groupings (most probably three by mid-1976) had an important power base and wielded considerable influence at many levels of the system, to varying extents controlling what has been referred to as the "networks of power" in the system. The reality of this influence can be illustrated by the fact that those who were most virulently opposed to the policy and who staunchly defended the merits of self-reliance, besides being represented at all levels of the political system (from the politburo on down) controlled the propaganda apparatus and wielded significant influence over the security forces. This state of affairs is borne out by the predominance of this group's views in the media and the ease with which its subsequently most important member, Hua Guofeng, used his power base in the security apparatus to bring down his former allies, the "Gang of Four", and secure his own position. With respect to the issue of acquiring large quantities of foreign engineering products in particular, a clear relationship has been demonstrated between the "Pi-Deng" campaign, the influence of the "opposition" at the lower levels, and the implementation of the acquisition process in the shipping sectors. The link between the second spurge of Deng Xiaoping and the drop in importation in the shipping sector is beyond dispute.¹ When Deng disappeared from public power in the purge enforced by the "opposition", imports in that particular sector were cut back to a bare minimum virtually overnight.

After the demise of the "Gang of Four" and the attempt, in 1977, by the fac-

tional grouping headed by Hua Guofeng to consolidate its position, there were indications that the succession struggle had not run its course. While the overview of formal and rhetorical statements appeared to indicate a relative return to normalcy, and a continued implementation of the policy, statistical data does not quite bear this out. The pivots of the policy; i.e., the expansion and broadening of foreign economic relations and the increased and diversified acquisition of foreign technology, were still the subject of controversy. This is demonstrated at the top levels of the system by Hua Guofeng's attempts to "out-bid" Deng Xiaoping with respect to the goals to be achieved by the general modernization program as well as the increasingly important role attributed in that context to the use of foreign technology. At the lower levels, which were responsible for implementing the policy, there were indications of immobilism and even of obstructionism.² While their existence is difficult to prove, both occurred at that time, and it was evident that the policy had not re-acquired its status as an "end", which was demonstrated by the developments in 1978.

In a number of ways the "Great Leap Outward" resembled the "Great Leap Forward" in terms of the assumptions which underlay it; i.e., high targets, the "leap-frog" approach etc. Interestingly, the implementation of the "spree" was conducted following the procedures established since 1972, and on the whole the choice of technology was identical to that of the previous years. The financial management of the acquisitions was largely similar to the arrangements made since 1974-1975. The difference between 1978 and the pre-1976 years lay primarily in the extent of the expansion and the financial engagements made in connection with the acquisitions.

The opening section of the analysis presented in this chapter contended that part of the change that occurred after 1978 could be attributed to the insufficiency of the financial foundations of the 1978 "version" of the general policy of developing the PRC economy, including expanding foreign economic relations and acquiring more foreign technology. Basically, the policy in 1978 was a re-run of the options of 1972, the differences relating to quantity rather than to quality. This option soon turned out to be unviable, which suggests the conclusion that until 1978 the overall policy of expanding foreign economic relations and of making use of foreign technology did not change in essence. While in 1976 and part of 1977 its implementation was subject to attempts to disrupt and obstruct it, the conduct of the relationships

and the acquisitions were also governed by routine procedures. Thus in terms of trading partners, the general commodity composition of the imports, the type and form of the acquired technology, the most commonly used financial arrangements, and, until 1976, the average progression in terms of growth, the evolution of the implemented policy followed the "blueprints" of the early 1970's.

The watershed as far as the change in approach is concerned, is the Third Plenum of December of 1978. On that occasion, the long-lasting power struggle, which had been going on inside the dominating coalition which formed the post-Mao leadership, in essence came to an end. The resulting redistribution of power at the "Center" and the subsequent changes of membership in all top-level organs of power, spelled the decline of Hua Guofeng and the rise to prominence of Deng Xiaoping, and with him of those who advocated similar means of achieving economic development. The effects of the shift at the "Center", in particular with respect to the objectives and the conduct of the PRC's policy of foreign economic relations and the acquisition of foreign technology, were substantial. These changes did not so much affect the approach itself, but rather the "details" of its objectives and conduct. The fact that attention was again being paid to "details", and that attempts were made to confront some of the basic problems and constraints in connection with the successful acquisition and use of foreign technology, can be interpreted as a sign that the policy was again being viewed as an "end". This interpretation finds support at the level of implementation. For, while at the level of formal policy and at the now substantially more low-key level of rhetoric, the leadership presented the outlines and objectives of a policy of "re-adjustment", they introduced a remarkable change in terms of sophistication, in implementing acquisitions and conducting economic relations.

Against the above background, a number of observations can be made concerning some of the factors which affect a policy's "change of status"; i.e., its transformation from an "end" to a "means". To begin with, it would seem that the failure or success of any given policy is no criterion for a change in policy. Likewise, norms as these are no criteria for the elevation of a policy, or one of the issues contained in it, to the ideological level; i.e., its transformation from an "end" to a "means". The reasons for this appear to be multiple. First of all there exists no institutionalized, formal means of measuring a policy's effects, be they negative or positive. There exists no

institution in the PRC system designed or designated to evaluate policy. Secondly, PRC history tends to show that the success or failure of a policy is ultimately measured not so much by actual results, but rather by ideological desirability and rectitude. Even a brief review of the PRC's record in this regard; the First Five Year Plan, the "Great Leap", the "Cultural Revolution", etc., will show that a policy can be a partial or total failure and nevertheless be maintained on the grounds that it is ideologically correct. No change will take place until the ideological tenets of the policy are declared wanting. This latter development will not take place as long as the initiators of the policy are in actual power. Only when a new coalition is formed which effectively challenges those in power and takes over (in the process establishing a new set of ideological tenets which then constitute the correct ideological line) may a policy be changed. However, the policy does not necessarily have to be changed. While ideological correctness appears to be the single criterion for the alteration of policy, the introduction of a new "correct" ideological "line" does not automatically bring about a change in policy. This is underscored by the observation that Hua Guofeng came to power by supporting one particular set of ideological tenets which explicitly opposed the policy of expanding foreign economic relations and relying on foreign technology. Once he was in power, however, he became, in terms of actual behavior, the most important proponent of that very same approach.

It has been maintained here that only the analysis of implemented policy can provide information about what is being done and achieved. Formal policy statements, are unreliable indicators of a policy's achievements and conduct. This type of statement, however, is important in the analysis of the position and status of a policy in relation to the actors involved in its formulation, defense and implementation. Formal statements as well as rhetoric concerning policy provide information about a policy's position on the "end"- "means" scale, about forthcoming changes in that respect, about changes in the composition or the functioning of the dominant coalition or of the viability of the political basis of the policy in terms of the power base of the members of the leadership.

Thus, since the successful implementation of a policy depends largely on the extent and stability of the power base of the initiators and proponents of the policy, any deviation in public from the official line, including congresses of the CCP or the National People's Congress and in the media can be read as

a sign of discord. As has been pointed out, the discord or the terms in which the criticism is voiced need not necessarily directly concern the policy. Nevertheless, any more or less persistent criticism of a policy should be viewed as a challenge to the power base of the dominant coalition or parts thereof. If the policy is mentioned or discussed frequently (as was the case with the veiled criticism formulated in terms of the adherence to self-reliance which surfaced in a number of speeches at the 1975 NPC), it can be assumed that a change in status has occurred or is in the making.

By the same token, two other indicators are of interest which relate to the level of the formal statements, not to rhetoric. Meant here are the appearances in the media or in other public circumstances, of announcements or references concerning the change in a position of responsibility for a specific part of a policy, or a specific program within the framework of a policy. Such statements, while they may but do not necessarily have to refer to the actual or professed performance of a program, policy or even an individual, can be viewed as the indicator of an ongoing or impending change in one of the coalition's bases of power, or of an ongoing or concluded purge in the coalition. A recent example of the latter development was the demise of the minister responsible for petroleum affairs in 1980,³ which occurred parallel to the demise in the coalition of the so-called "petroleum faction", unfavorable to Deng's policies. In addition, an officially announced change in focus or priorities within the framework of a policy which otherwise is maintained, generally indicates the existence inside the ruling coalition of a faction in disagreement with the remainder of the coalition or its leader. The faction, however, is not sufficiently in disagreement, or not sufficiently powerful, to wish to or to be able to alter the coalition's stance in any significant manner. The change in focus and the disagreement concerning the introduction and use of material incentives (a disagreement which has been related to an argument between Deng Xiaoping and Chen Yun) may serve as an illustration of one such recent development.⁴

Finally, recurring references in official statements to a policy as well as to its objectives, implementation and consequences will indicate the existence, at that moment, of a stable power base for the coalition. However, while recurring references to a policy indicate secure power bases and stability, and the disappearance from public reference of a policy can be viewed as a sign of intra-coalition discord, neither type of statements should be taken as an indicator of developments at the level of implemented policy. This same cau-

tion applies to an even higher degree to policy-related rhetoric. While the present leadership has attempted since 1979-1980 to keep statements of these two types separate, caution should be observed in distinguishing these statements from officially released accounts, concerning implemented policy. While the latter type of information may not always be of the most reliable type, it can be expected to take into consideration, to some extent, the effects of prevailing bureaucratic influences, something which formal policy statements and policy-related rhetoric are not known for.

NOTES TO SUMMARY REMARKS

- 1) Cf. Fenwick (1980).
- 2) Although specific proof regarding obstructionism in particular, is difficult to obtain, a multitude of examples and "cases" are known and commonly referred to by foreigners, in Hong Kong and elsewhere, who conduct trade with the PRC.
- 3) Namely Song Zhen ming, who was sacked. Officially as a result of the sinking of the Bohai II jack-up rig in November 1979 resulting in 72 deaths.
- 4) References to this clash have surfaced in the pages of Issues and Studies, and have been confirmed by generally well-informed sources in Hong-Kong.

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